

Richard Heimann (CA State Bar # 063607)
Nimish R. Desai (CA State Bar # 244953)
LIEFF CABRASER HEIMANN & BERNSTEIN, LLP
275 Battery St., 29th Fl
San Francisco, CA 94111-3339
Telephone: 415-956-1000
Facsimile: 415-956-1008
rheimann@lchb.com
ndesai@lchb.com

David S. Stellings (*pro hac vice*)
Katherine I. McBride (*pro hac vice*)
Jessica A. Moldovan (*pro hac vice*)
LIEFF CABRASER HEIMANN & BERNSTEIN, LLP
250 Hudson Street, 8th Floor
New York, NY 10013
Telephone: 212.355.9500
Facsimile: 212.355.9592
dstellings@lchb.com
kmcbride@lchb.com
jmoldovan@lchb.com

Attorneys for Plaintiffs

[Additional counsel listed on signature page]

UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF CALIFORNIA

James Milstead, et al.,

Plaintiffs,

v.

GENERAL MOTORS LLC, et al.,

Defendant.

Case No. 4:21-cv-06338-JST

**THIRD AMENDED CLASS ACTION
COMPLAINT**

JURY TRIAL DEMANDED

TABLE OF CONTENTS

		Page
1		
2		
3	I. INTRODUCTION	1
4	II. PARTIES	4
5	A. Plaintiffs	4
6	B. Defendants	6
7	III. JURISDICTION, VENUE, AND INTRADISTRICT ASSIGNMENT	7
8	IV. GENERAL FACTUAL ALLEGATIONS	8
9	A. SDMs are supposed to detect crashes and control airbags and seatbelts.	8
10	B. GM used a dangerous and defective SDM software calibration in its trucks	
11	and SUVs.	11
12	C. GM knew that the SDM Calibration Defect was dangerous and unjustified	
13	but has failed to warn or compensate consumers.	14
14	1. Old GM recklessly downplayed serious risks of injury when it	
15	chose to include the SDM Calibration Defect in the Class Vehicles.	16
16	2. GM's aggressive cutoff was not necessary to protect against "late"	
17	airbag deployments.	20
18	3. GM knew about a pattern of suspicious accidents involving the	
19	SDM Calibration Defect in the Class Vehicles.	22
20	a. GM has litigated (and settled) many personal injury lawsuits	
21	for suspicious airbag failures in the Class Vehicles.	23
22	b. GM knew or should have known about hundreds of publicly	
23	reported airbag failures in the Class Vehicles.	32
24	D. Despite its knowledge, GM misrepresented and concealed important	
25	information about the SDM Calibration Defect and Class Vehicle safety.	50
26	1. Labels and window stickers on the Class Vehicles stated that they	
27	were equipped with working airbags and seatbelts and failed to	
28	disclose the SDM Calibration Defect.	51
	2. GM published owners' manuals for the Class Vehicles that detailed	
	their safety features but did not disclose the SDM Calibration	
	Defect.	54
	3. GM marketed the Class Vehicles to be safe and reliable but failed	
	to mention the SDM Calibration Defect.	58
	4. GM provided warranties to repair defects in the Class Vehicles and	
	have not done so.	61
	V. CLASS ACTION ALLEGATIONS	62
	A. The Class Definition	62
	B. Numerosity: Federal Rule of Civil Procedure 23(a)(1).	63
	C. Commonality and Predominance: Federal Rule of Civil Procedure 23(a)(2)	
	and 23(b)(3).	64
	D. Typicality: Federal Rule of Civil Procedure 23(a)(3)	65
	E. Adequacy: Federal Rule of Civil Procedure 23(a)(4)	65

TABLE OF CONTENTS
(continued)

	Page
F. Declaratory and Injunctive Relief: Federal Rule of Civil Procedure 23(b)(2).....	65
G. Superiority: Federal Rule of Civil Procedure 23(b)(3)	66
VI. ANY APPLICABLE STATUTES OF LIMITATION ARE TOLLED.....	66
VII. CAUSES OF ACTION	68
VIII. PRAYER FOR RELIEF.....	79
IX. DEMAND FOR JURY TRIAL.....	80

1 Plaintiffs, individually and on behalf of all others similarly situated (the “Class”), allege
 2 the following against General Motors LLC, General Motors Holdings LLC, and General Motors
 3 Company (collectively, “Defendants,” “GM,” or “New GM”) based, where applicable, on
 4 personal knowledge, information and belief, and the investigation of counsel and their experts.
 5 Plaintiffs file this complaint pursuant to the Court’s Order granting leave (Dkt. 196 at 19) and
 6 attach hereto as Exhibit E a redline comparison between this complaint and the previous pleading
 7 for the Court’s reference.

8 **I. INTRODUCTION**

9 1. This case involves a dangerous defect that compromises critical safety systems in
 10 millions of GM trucks and SUVs. When working properly, during a frontal crash of sufficient
 11 severity, a vehicle’s seatbelts should tighten to hold the vehicle occupants in place, and the
 12 airbags should inflate to protect them from hard impacts. A defect in the Class Vehicles, however,
 13 can prevent seatbelt tightening and airbag deployment during certain types of crashes, leaving
 14 vehicle occupants without protection exactly when they need it most.¹

15 2. The defect is contained in the software that governs the Class Vehicles’ airbag
 16 control unit. This unit, also known as the Sending and Diagnostic Module (“SDM”), is a small
 17 computer connected to sensors placed throughout a vehicle. These sensors monitor vehicle
 18 performance and tell the SDM when they detect irregular behavior.

19 3. Based on the signals it receives from these sensors, the SDM *should* fire the
 20 airbags and tighten seatbelts when needed in a real-world crash of sufficient severity. But in the
 21 Class Vehicles, the software program that controls the SDM is calibrated in such a way that it
 22 prematurely prevents airbag and seatbelt deployment, long before any reasonable or acceptable
 23 time to do so. This has serious repercussions in foreseeable, real-world accidents that need
 24 seatbelt and airbag deployment after the software cuts off access to those features—such as
 25 accidents that involve multiple impacts, or that start with a soft initial onset and then increase in
 26

27 ¹ The “Class Vehicles” include all vehicles in the United States that contain the SDM Calibration
 28 Defect that were (1) manufactured, sold, distributed, or leased by Defendants or (2)
 manufactured, sold, distributed, or leased by General Motors Corporation (“Old GM”) and
 purchased or leased by Plaintiffs or a Class member after July 10, 2009.

1 severity over time. In such accidents, the airbags and seatbelts in the Class Vehicles can fail. Put
2 simply, because of a persistent, dangerous insistence within the company's Trucks Group, GM
3 used a software calibration that can and does prematurely close the time window to engage
4 airbags and seatbelts in a crash, putting occupants of the Class Vehicles at serious risk.

5 4. Old GM knew about the effect of this calibration and related dangers from the very
6 outset, when it originally decided to prematurely close the time window for airbag deployment in
7 the Class Vehicles in the late 1990s.² In the process, Old GM overrode serious concerns from a
8 team from Delco Electronics (later called Delphi Electronics, now known as Aptiv), including
9 engineering manager, Chris Caruso. Mr. Caruso and a team of software engineers from Delco—
10 which designed the base SDM software program used in the Class Vehicles and other GM
11 vehicles—expressly warned Old GM in or about 1999 that using its strategy to prematurely cut
12 off the potential for airbag and seatbelt deployment during a crash event was a reckless and
13 dangerous design decision.

14 5. Old GM's Trucks Group, which was in charge of the design and development for
15 all GM trucks and SUVs, ignored this warning and insisted on using its defective SDM
16 calibration strategy. Given their significant concerns, Mr. Caruso and the Delco team insisted that
17 Old GM sign a disclaimer of Delco's liability for the modified algorithm as used in GM trucks
18 and SUVs.

19 6. Tellingly, a separate team in charge of the design and development for GM cars
20 rejected GM Trucks' approach after hearing (and heeding) the Delco team's concerns about the
21 earlier cutoff. As such, GM cars included a much longer window (fully twice as long as the
22 window used by GM Trucks, approximately 100 milliseconds at minimum) for the airbags and
23 seatbelts to deploy in a crash for the vehicles they designed. As such, not only did GM Trucks
24 reject the warnings from Mr. Caruso and the Delco team, it also ignored its own cars group's
25 views, which included a time window that more reasonably and appropriately tracks the duration
26 of crash events in the real world, as opposed to the laboratory crash test environment.

27
28 ² As detailed further below, Old GM filed for bankruptcy in 2009, which led to the creation of the
contemporary GM entities named as Defendants herein.

7. On information and belief, starting in or about 1999, GM Trucks Group (and Old GM before it) used its defective approach to SDM software calibration in all of the trucks and SUVs (mid and large size vehicles) under its direction, and continued to use its dangerous and defective approach to prematurely cut off airbag and seatbelt deployment during crashes at least through model year 2018. Plaintiffs refer to this defective strategy—to calibrate software to prevent airbag and seatbelt deployment during a “dead zone” that begins too soon after a crash has begun, and well before the safer window used by GM cars (a minimum of approximately 100 milliseconds after a crash has begun)—as the “SDM Calibration Defect.”

8. When General Motors, LLC (“GM LLC”) was formed in 2009, it acquired books, records, and personnel from Old GM that reflected this reckless decision to use the dangerous SDM calibration in GM trucks and SUVs. Despite this acquired knowledge, GM continued to use Delco SDMs in its vehicles and, on information and belief, continued to use the defective software calibration associated with those Delco SDMs as well.

9. Since it was formed in 2009, GM has gained still more knowledge of the defect through personal injury lawsuits, consumer complaints, and its own investigations into serious crashes where the airbags and seatbelts failed in the Class Vehicles. As an example, documents in a personal injury lawsuit filed against GM LLC in 2011 describe the SDM Calibration Defect in detail and relate Old GM’s reckless decision to use it. *See* § IV.C.3.a, *infra*. Chris Caruso, the engineer who originally objected to the defective deployment strategy in the first instance, has gone on to serve as an expert in a number of these cases.

10. While the use of the defective shutoff strategy began some twenty years ago, it remains a real and immediate risk to Plaintiffs and Class members today. Indeed—and while personal injury settlements are not uniformly made public (such that the records available to Plaintiffs only reflect those publicly disclosed)—court records show that GM settled yet another personal injury lawsuit about the SDM Calibration Defect in December 2022.

11. Discovery in that case, *McCoy v. General Motors*, revealed that GM persisted in using its dangerous, early cutoff strategy in a model year 2018 GM SUV. Mr. Caruso’s report in *McCoy* provides direct evidence that, after first insisting on its defective deployment cutoff

1 strategy in approximately 1999, for many years (decades) thereafter up to 2018, GM Trucks
 2 failed to adopt a safer and more rational design that would allow for deployment for at least as
 3 long as the window used by GM cars (*i.e.*, approximately 100 milliseconds at a minimum). *See*
 4 § IV.C.3.a, *infra*. To the contrary, in both 1999 and 2018, GM’s trucks and SUVs dangerously cut
 5 off the deployment window far short of that minimum.

6 12. Finally, publicly available consumer complaints to the National Highway Traffic
 7 and Safety Administration (“NHTSA”) detail more than *eight hundred* instances where the
 8 airbags and/or seatbelts suspiciously failed in the Class Vehicles during frontal crashes. Many of
 9 these reports specifically state that GM knew about and investigated the crash after the reported
 10 airbag failures. A separate NHTSA dataset indicates that, from 1999 to 2021, at least 1,298
 11 people were killed or injured in a frontal collision in which the airbags did not deploy in one of
 12 these vehicles. *See* IV.C.3.b, *infra*.

13 13. Despite its knowledge of the SDM Calibration Defect and its impact on safety,
 14 GM has concealed the defect and failed to recall or repair the Class Vehicles, and has thereby
 15 avoided the significant costs, inconveniences, and reputational harms of recalling millions of
 16 trucks and SUVs. GM has hidden the defect despite its obligation to disclose it, misrepresented
 17 the Class Vehicles to be safe, and continued to sell them to consumers.

18 14. Because of GM’s failure to disclose the truth, consumers continue to purchase and
 19 drive Class Vehicles with the SDM Calibration Defect every day—on road trips, commutes, and
 20 weekend errands alike—unaware that their airbags and seatbelts may not work in certain serious
 21 crashes when they need them. This lawsuit seeks redress from GM for the damages incurred
 22 when Plaintiffs and proposed Class members paid for vehicles with a safety system that may fail
 23 them in life-threatening collisions.

24 **II. PARTIES**

25 **A. Plaintiffs**

26 15. Plaintiff James Milstead (“Plaintiff” for the purposes of this paragraph) is an
 27 individual residing in Oxnard, CA. On September 11, 2021, Plaintiff purchased a 2012 Avalanche
 28 (for purposes of Plaintiff’s allegations, the “Class Vehicle”) from Escondido Auto Super Center

1 in Escondido, CA. On information and belief for the reasons set forth herein, GM installed the
 2 SDM Calibration Defect—which shut off the vehicle’s ability to deploy airbags in a crash
 3 prematurely—in Mr. Milstead’s truck during the manufacturing process, and Mr. Milstead’s truck
 4 contained the SDM Calibration Defect at the time he purchased the vehicle. At the time of
 5 purchase, Plaintiff reasonably expected that the airbags and seatbelts would function in the event
 6 of a crash and had no way of knowing that it contained a dangerous and defective SDM
 7 calibration that could cause the airbags and seatbelts to fail when needed during a crash. To the
 8 contrary, before acquiring the vehicle, Plaintiff viewed or heard commercials and reviews through
 9 television, radio, and the internet that touted the safety and reliability of Plaintiff’s vehicle and
 10 GM vehicles generally. GM concealed the existence of the defective SDM calibration from
 11 consumers including Plaintiff. Plaintiff would not have purchased the Class Vehicle, or would
 12 have paid less for it, if Defendants did not conceal material information about the defective SDM
 13 calibration.

14 16. Plaintiff Arthur Ray (“Plaintiff” for the purposes of this paragraph) is an individual
 15 residing in Brentwood, California. In or around January 22, 2010, Plaintiff purchased a new 2010
 16 GMC Sierra 2500 (for purposes of Plaintiff’s allegations, the “Class Vehicle”) from Concord
 17 GMC, an authorized dealership located in Concord, California. On information and belief for the
 18 reasons set forth herein, GM installed the SDM Calibration Defect—which shut off the vehicle’s
 19 ability to deploy airbags in a crash prematurely—in Mr. Ray’s truck during the manufacturing
 20 process, and Mr. Ray’s truck contained the SDM Calibration Defect at the time he purchased the
 21 vehicle. At the time of purchase, Plaintiff reasonably expected that the vehicle’s airbags and
 22 seatbelts would function in the event of a crash and had no way of knowing that it contained a
 23 dangerous and defective SDM calibration that could cause the airbags and seatbelts to fail when
 24 needed during a crash. To the contrary, before acquiring the Vehicle, Plaintiff viewed or heard
 25 commercials and reviews through television and the internet that touted the safety and reliability
 26 of Plaintiff’s vehicle, including its “Five Star” safety rating, and GM vehicles generally. GM
 27 concealed the existence of the defective SDM calibration from consumers including Plaintiff.
 28

1 Plaintiff would not have purchased the Class Vehicle, or would have paid less for it, if
 2 Defendants did not conceal material information about the defective SDM calibration.

3 17. Plaintiff Richard Vargas (“Plaintiff” for the purposes of this paragraph) is an
 4 individual residing in Menifee, California. In or around December 2012, Plaintiff purchased a
 5 new 2012 Chevrolet Suburban (for purposes of Plaintiff’s allegations, the “Class Vehicle”) from
 6 El Camino Real Chevrolet dealership located in Monterey Park, California. On information and
 7 belief for the reasons set forth herein, GM installed the SDM Calibration Defect—which shut off
 8 the vehicle’s ability to deploy airbags in a crash prematurely—in Mr. Vargas’ SUV during the
 9 manufacturing process, and Mr. Vargas’ SUV contained the SDM Calibration Defect at the time
 10 he purchased the vehicle. At the time of purchase, Plaintiff reasonably expected that the Vehicles’
 11 airbags and seatbelts would function in the event of a crash and had no way of knowing that it
 12 contained a dangerous and defective SDM calibration that could cause the airbags and seatbelts to
 13 fail when needed during a crash. To the contrary, before acquiring the Vehicle, Plaintiff viewed
 14 or heard commercials and reviews through television, radio, and the internet that touted the safety
 15 and reliability of Plaintiff’s vehicle, including its “Five Star” safety rating, and GM vehicles
 16 generally. Additionally, when at the dealership before making his purchase, Plaintiff inquired
 17 about the airbags in the Class Vehicle. GM concealed the existence of the defective SDM
 18 calibration from consumers including Plaintiff. Plaintiff would not have purchased the Class
 19 Vehicle, or would have paid less for it, if Defendants did not conceal material information about
 20 the defective SDM calibration.

21 **B. Defendants**

22 18. General Motors LLC (“GM LLC”) is a Delaware limited liability company with its
 23 principal place of business located at 300 Renaissance Center, Detroit, Michigan, and is a citizen
 24 of the States of Delaware and Michigan. The sole member and owner of GM LLC is General
 25 Motors Holdings LLC.

26 19. General Motors Holdings LLC (“GM Holdings”) is a Delaware limited liability
 27 company with its principal place of business in Detroit, Michigan, and is a citizen of the States of
 28

1 Delaware and Michigan. The sole member and owner of GM Holdings is General Motors
2 Company.

3 20. General Motors Company (“GM Parent”) is a Delaware corporation with its
4 principal place of business in Detroit, Michigan, and is a citizen of the States of Delaware and
5 Michigan. GM Parent’s only asset is its 100% ownership interest in GM Holdings. In public SEC
6 filings, GM Parent states: “We design, build and sell cars, trucks, crossovers and automobile parts
7 worldwide.” GM Parent sells vehicles throughout the United States “through [its] dealer network
8 to retail customers.” As further noted in SEC filings, GM Parent is also responsible for making
9 reports to NHTSA related to vehicle safety and making determinations as to vehicle recalls.³

10 21. Each of GM LLC, GM Holdings, and GM Parent operates out of GM’s Global
11 Headquarters in Detroit, Michigan.

12 22. In June 2009, Old GM filed for bankruptcy. Defendants were then created on or
13 about July 10, 2009, in connection with the sale of substantially all of Old GM’s assets pursuant
14 to a Master Sale and Purchase Agreement. As a result of the sale, GM LLC acquired substantially
15 all of Old GM’s books, records, and personnel. GM LLC then transferred some of these assets to
16 GM Holdings (formed shortly after the bankruptcy sale). Defendants thereby acquired from Old
17 GM the knowledge about the SDM Calibration Defect (defined below) that those books, records,
18 and personnel held. GM Parent and GM LLC also took responsibility for any necessary recalls of
19 Old GM vehicles going forward.

20 23. The causes of action in this Complaint are directed to GM Parent, GM Holdings,
21 and GM LLC and are based on their misconduct.

22 **III. JURISDICTION, VENUE, AND INTRADISTRICT ASSIGNMENT**

23 24. This Court has original jurisdiction over this action pursuant to the Class Action
24 Fairness Act (“CAFA”), 28 U.S.C. § 1332(d), because at least one Class member is of diverse
25 citizenship from one Defendant, there are more than 100 Class members, and the aggregate
26 amount in controversy exceeds \$5 million, exclusive of interest and costs.

27
28

³ See General Motors Company’s Form 10-K for fiscal year 2019.

25. This Court has personal jurisdiction over Defendants under California Code of Civil Procedure section 410.10.

26. Venue is proper in this District under 28 U.S.C. § 1391, and assignment is proper to this division under N.D. Cal. L.R. 3-2, because a substantial part of the events or omissions which give rise to the claims occurred in this District, and because Defendants have caused harm to Class members residing in this District, including Plaintiff Ray. GM conducts substantial business, including through numerous dealerships, and marketed, advertised, sold, and leased Class Vehicle in this District.

IV. **GENERAL FACTUAL ALLEGATIONS**

A. **SDMs are supposed to detect crashes and control airbags and seatbelts.**

27. Car crashes kill or seriously injure hundreds of thousands of people every year. Because of this risk, the federal government requires automobile manufacturers to include critical safety features—seatbelts and airbags—in all vehicles sold in the United States. This life-saving equipment has been mandatory in passenger vehicles since 1997. *See* 49 U.S.C. § 30127.

28. These features include seatbelt pretensioners, which tighten seatbelts to secure the occupants, and airbags, which are cushions that rapidly inflate from the steering wheel and other areas of the vehicle. During an accident, seatbelt pretensioners hold vehicle occupants in place, and airbags buffer or prevent impact between occupants and hard structures in the vehicle. Without the airbags, slamming into the hard structures (such as the steering wheel) during a crash can and has caused serious injuries and death.

29. When functioning properly, the combination of seatbelts and airbags is highly effective in reducing the safety risk in automobile collisions. NHTSA reports that the use of seatbelts and airbags reduces fatality risk by **61 percent** compared to an unbelted occupant in a vehicle without airbags.⁴ From 1987 to 2017, an estimated 50,457 lives were saved because frontal airbags deployed during a crash.⁵

⁴ U.S. Department of Transportation, NHTSA, *Fatalities in Frontal Crashes Despite Seat Belts and Airbags*, NHTSA Technical Report No. DOT HS 811 202 (September 2009).

⁵ NHTSA, Air Bags Overview. *Available at:* <https://www.nhtsa.gov/equipment/air-bags> (last visited July 27, 2023).

30. Although airbags work effectively to protect occupants when necessary, they are not meant to deploy with every impact. A crash may be of lower intensity (e.g., a low-speed fender bender in a parking lot) such that the seatbelt alone will be sufficient protection for the occupant.⁶ Airbags are designed to deploy in “moderate to severe” frontal or near-frontal crashes. A “moderate to severe” frontal crash is the equivalent of hitting a solid, fixed barrier at 8-14 miles per hour or higher.⁷

31. Seatbelt and airbag systems are known as “passive” safety systems because, when they are needed, they are supposed to operate automatically (meaning, the driver does not need to hit a button to deploy the airbag). They use sophisticated hardware components and software to activate and deploy the seatbelts and airbags systems automatically.

32. The “brain” behind this operation is the airbag control unit or “ACU” (also known as an Electronic Control Unit or “ECU”). GM refers to this component as the “Sensing and Diagnostic Module” or “SDM,” and that term is used throughout this Complaint. SDMs are effectively computers that control the car’s safety systems. They are intended, where appropriate, to issue a “command” to deploy airbags and tighten seatbelts to prevent or mitigate injury to vehicle occupants in a crash.

33. The SDM operates in three basic phases:

a. *First*, during regular vehicle operation, the SDM sits in a resting or “normal” mode. In this mode, the SDM constantly receives signals from sensors placed throughout the vehicle, which collect and report information on inputs such as acceleration, wheel speed, brake pressure, and impacts.⁸ The SDM monitors and interprets these signals to determine whether the vehicle is involved (or about to be involved) in a crash.

b. *Second*, while monitoring these signals in “normal” mode, if and when the SDM detects an irregular input that suggests a potential crash, it “wakes up” to search for further

⁶ Dr. Ching-Yao Chan, *Fundamentals of Crash Sensing in Automotive Airbag Systems*. Copyright Society of Automotive Engineers, (2000), at p. 50.

⁷ Air Bags Overview, *supra* note 5.

⁸ Clemson University Vehicular Electronics Laboratory, “Airbag Deployment Systems.” Available at: https://cecas.clemson.edu/cvel/auto/systems/airbag_deployment.html (last visited July 27, 2023).

confirmation of a crash (as opposed to, for example, an irregular input from slamming on the brakes and then avoiding a collision). In this second stage—known as “wake up” or “standby” mode—the SDM’s crash-sensing software algorithm is engaged to quickly decipher crash status and respond.⁹ After “wake up” mode is triggered by an irregular input, if additional inputs confirm a moderate to severe frontal crash, the SDM *should* issue a command to “fire” the airbag and/or tighten the seatbelts as needed.¹⁰

c. *Third*, the final phase in this sequence is the “reset” phase. From “wake up” mode, after it detects that a crash or a potential crash has fully completed, (i.e., that the vehicle has returned to normal operation after an irregular input) the SDM ultimately returns to its normal operating state through “resetting.”

34. A vehicle striking a pothole illustrates this three-phase sequence. The vehicle first operates with the SDM in “normal” mode as it drives down the road. Then, suddenly, the driver hits an unseen pothole. This jolt from hitting the pothole (and/or related inputs like deceleration) will trigger the SDM to enter “wake up” mode where it searches for more inputs. Awake, the SDM quickly asks: “How fast is the vehicle slowing down? Is the front bumper crushed? Is the vehicle speeding back up normally?” and reacting in turn.¹¹

35. If the SDM senses that the vehicle returns to normal operation and continues down the road, it will stop looking for confirmation of a crash and reset to normal operation. On the other hand, if, after it hits the pothole, the vehicle veers out of its lane and crashes into another vehicle head on, the SDM should detect this second input and fire the airbag.¹²

36. This entire sequence—from sensing an irregular signal (the pothole), to waking up and searching for confirmation of a crash, to firing the airbag where needed—might take only fractions of a second. For that reason, timing this sequence properly is critically important to

⁹ John Pearley Huffman, “The Physics of Airbags,” *Car & Driver*, June 14, 2011. Available at: <https://www.caranddriver.com/features/a15121591/the-physics-of-airbags-feature> (last visited July 27, 2023).

¹⁰ Jesse Kendall, P.E., and Kenneth Solomon, Ph.D., “Airbag Deployment Criteria” at p. 11. Available at: <https://www.experts.com/content/articles/Kenneth-Solomon-Airbag-Paper.pdf> (last visited July 27, 2023).

¹¹ Solomon, *supra* note 10, at p. 11.

¹² *Id.* at p. 8.

1 ensure that the seatbelts are tightened, and the airbags deploy, to protect the occupants when they
2 need to.

3 **B. GM used a dangerous and defective SDM software calibration in its trucks**
4 **and SUVs.**

5 37. Throughout the three-phase sequence described above, SDMs rely on software
6 algorithms to interpret signals, estimate crash dynamics, and issue a “deploy” or “do not deploy”
7 command to the safety systems.

8 38. For the SDM to function as intended, the software that controls it must be designed
9 to recognize and respond to real-world crashes so that the airbags inflate and seatbelts tighten
10 when they are needed.

11 39. Crash sensing occurs in “real-time.” This means that the sensing algorithm can
12 only examine a limited window of data to predict and judge the severity of crash events before
13 conclusion, so that the airbags can deploy and protect the occupant on impact.¹³ A decision to
14 “deploy” the airbags should occur when certain pre-set thresholds that tell the SDM a crash is
15 severe enough (i.e., a moderate to severe frontal collision) are met or exceeded. These
16 deployment thresholds are programmed into the SDM software through a process in which
17 engineers “calibrate” the software algorithm in the vehicle.

18 40. In the Class Vehicles, the software calibration that controls how and when the
19 SDM detects accidents and deploys the safety systems contains a serious defect. Specifically, for
20 frontal crashes, GM calibrated the SDM to prevent deployment during a dead zone. The dead
21 zone starts with a cutoff time imposed by GM after the SDM “wakes up.” At this early stage,
22 Plaintiffs note that time used and recorded by the SDM software (i.e. 45ms, 50ms, 100ms, etc.),
23 including the time elapsed for purposes of triggering the cutoff and resulting dead zone, is
24 complex. As a general matter, it refers to time as calculated in the software, as opposed to
25 traditional, linear time.

26 41. Putting aside whether any cutoff is necessary in light of advancements in modern
27 airbag technology, GM Trucks selected cutoff times that are reached too soon by any measure,

28 ¹³ Chan, *supra* note 6, at p. 95.

1 i.e., cutoff times of less than approximately 100 milliseconds, which is a more realistic time
 2 period for crash sequences to progress, and the safer window used by GM cars.¹⁴ At the
 3 premature cutoff time used by GM Trucks, the algorithm increases the deployment thresholds to
 4 unattainable values, meaning that no matter how severe the inputs the SDM receives, the airbags
 5 and pretensioners will not deploy. Further, when the SDM clock is above the cutoff time, this
 6 dead zone does not end until SDM reset, and thus persists through foreseeable real world
 7 collisions. In sum, this defective design and premature cutoff—the SDM Calibration Defect—
 8 introduces a dead zone to a window where airbag deployment is often necessary in real-world
 9 crashes, but by design cannot happen.

10 42. Cutting off airbag deployment in the short duration GM Trucks used was callous
 11 and dangerous, particularly when compared to the time for a typical “crash duration” in a
 12 straightforward frontal, vehicle-to-barrier collision, which lasts for approximately 80-150
 13 milliseconds (0.08-0.15 seconds), much longer than the cutoff imposed by GM Trucks
 14 (approximately 50 milliseconds or less).¹⁵ And of course, more complex, multi-impact crashes
 15 may take even longer.

16 43. This defective calibration was no accident; rather, as detailed below, GM included
 17 it by design when it modified the SDM software program (originally known as ALGO-S) in the
 18 Class Vehicles to include it. In affirmatively and prematurely blocking these critical safety
 19 features while a crash is foreseeably still underway, GM greatly and needlessly increased the risk
 20 of injury and death in a variety of frontal crashes that require airbag deployment during the “dead
 21 zone.”

22 44. For example, this includes frontal crashes with multiple, distinct points of impact
 23 known as “concatenated” events. A vehicle that first hits a curb and then veers and hits a tree, or
 24 first hits a speed bump and then crashes into the vehicle in front of it, are examples of
 25 concatenated crashes. By their nature, concatenated accidents involve multiple discrete inputs for
 26 the SDM to detect during a crash sequence.

27
 28 ¹⁴ See ¶¶ 109-110 and Mr. Caruso’s *McCoy* report, *infra*.

¹⁵ Chan, *supra* note 6, at p. 169.

45. In concatenated crashes, the first part of the incident (hitting a curb) sends the SDM into its “wake up” or “stand by” mode. The initial curb hit does not trigger the airbag or tighten the seatbelt, but the SDM “wakes up” to confirm whether further irregular signals will follow and indicate a need for the seatbelts or airbags. In the Class Vehicles—because of the software calibration that controls the SDM—the “wake up” mode lasts for approximately 50 milliseconds or less after the first irregular signal. After that point on the clock, no further input, no matter how severe, could exceed the thresholds and trigger the airbags to deploy and/or seatbelts to tighten. As detailed in this section, the triggering thresholds are pre-set inputs in the software that tell the SDM that a crash is severe enough to deploy an airbag.

46. In addition to concatenated crashes, the SDM Calibration Defect is also implicated in frontal crashes that increase in severity and require airbag deployment or seatbelt tightening after an initial, “soft” impact. These types of crashes are referred to herein as “prolonged” or “long-soft” crash onsets. This would include, for example, a crash into another vehicle’s bumper which—because the bumper is comparatively “soft”—may take time before the “soft” bumper collapses, and a “hard” impact into the engine compartment begins.¹⁶ “Soft” crashes involve a “relatively long crash duration” that may last 20-50 percent longer than a head-on crash into a rigid barrier, like a cement wall.¹⁷

47. In a prolonged onset crash, the initial impact into a “soft” surface, such as a bumper, starts the SDM clock ticking. Depending on the crash conditions, such as speed, road incline, angle of impact, weather, ice on the road, etc., this “soft” impact may not require airbag deployment right away. Throughout the initial “soft” impact, the SDM will be in wake-up mode to search for a confirmatory signal. But it will not find another input sufficient to trigger the airbags from the “soft” impact. In the Class Vehicles, the SDM will then effectively time out at the cutoff imposed by GM Trucks. So, if the crash proceeds through the “soft” layers and into the engine compartment of another vehicle during the “dead zone” after the cutoff—such that airbag

¹⁶ An example of a “soft” crash is where a vehicle crashes into a deformable barrier, or crashes at an angle, which will result in a “softer” impact than a head-on crash into a rigid barrier (which is a “hard” crash). Chan, *supra* note 6, at p. 40.

¹⁷ Chan, *supra* note 6, at p. 40.

1 deployment is needed to protect the occupants at say, 75 milliseconds on the SDM clock—no
 2 airbag or seatbelt deployment is possible no matter how severe the “hard” impact is.

3 48. In practice, this means that the airbags and seatbelt pretensioners in the Class
 4 Vehicles cannot fire during a time period in crashes when they are necessary. If a second,
 5 irregular signal occurs after the cutoff GM imposed due to its defective strategy, the SDM
 6 purposefully, by design, disregards the second signal, even if it would otherwise trigger airbag
 7 deployment and/or seatbelts to tighten. The net result is a “dead zone,” during which vehicle
 8 occupants are completely vulnerable during a complex or long-duration crash. When the SDM
 9 clock is above the cutoff time, the dead zone lasts until the SDM detects that the crash has ended
 10 completely (meaning that the irregular signals have concluded, and the vehicle has resumed
 11 normal operation), and then resets back to normal mode. After the SDM has reset, additional
 12 impacts or irregular inputs register as new events, triggering the process to begin anew.

13 49. This significant gap in protection due to the cutoff is unreasonably dangerous
 14 because accidents—particularly complicated, real-world accidents—are not necessarily
 15 completed at the aggressive cutoff points GM used. In many cases, a crash continues in the “dead
 16 zone,” and the thresholds severe enough to trigger deployment are technically met during that
 17 time, but rendered inert. GM cars recognized this when it used a materially longer and safer
 18 cutoff for its vehicles. In contrast, GM’s SDM software calibration in the Class Vehicles with its
 19 early “dead zone” is a serious, unjustified, and dangerous safety defect.

20 C. **GM knew that the SDM Calibration Defect was dangerous and unjustified**
 21 **but has failed to warn or compensate consumers.**

22 50. GM knew or had reason to know of the SDM Calibration Defect and the risks it
 23 entails from at least July 10, 2009, when GM acquired substantially all of Old GM’s books,
 24 records, and personnel, and the knowledge about the defective SDM software calibration those
 25 books, records, and personnel held. GM has continued to acquire knowledge—based on lawsuits
 26 implicating the SDM Calibration Defect and hundreds of publicly reported accidents with airbag
 27 and seatbelt failures—from 2009 to the present.
 28

1 51. Nonetheless, GM has continued to conceal this problem and the pattern of
2 accidents, injuries, and deaths that have resulted from it. GM has failed to share this information
3 with the consumers who paid for and drive these Class Vehicles every day.

4 52. It should come as no surprise that GM has unreasonably and unsafely delayed
5 disclosure of the SDM Calibration Defect. Indeed, GM has a recent history of attempts to avoid
6 the costs, potential liabilities, and reputational harms from a safety recall for Takata airbags and
7 seems to have repeated that same tactic here.

8 53. As is now public knowledge, millions of GM vehicles contain the dangerous and
9 defective Takata airbag inflators that can explode with too much force and spray metal shrapnel
10 into vehicle passenger compartments. While the dangers of these Takata airbags were widely
11 known for years, GM lobbied regulators to delay a recall for its affected vehicles to avoid a
12 resulting hit to its profits.¹⁸ In 2016, GM reported that recalling its vehicles with Takata inflators
13 would cost hundreds of millions of dollars.¹⁹

14 54. Consumers brought a putative class action seeking redress. *See In re Takata*
15 *Airbag Product Liability Litigation*, Case No. 14-cv-240009, Dkt. 2750, (S.D. Fl.). While other
16 vehicle manufacturers had earlier and voluntarily recalled their vehicles with Takata airbags, it
17 was only years later, with that consumer litigation pending, that GM finally issued a belated
18 recall. And importantly, it did so only after regulators from NHTSA denied GM's petition for
19 inconsequentiality, in which it attempted to argue that a recall was not necessary.²⁰

20 55. Here, as in *Takata*, GM knew or should have known that the SDM software
21 calibration strategy in the Class Vehicles—which includes a dead zone that prematurely prevents
22 the airbag and seatbelts from deploying—was dangerous. Nonetheless, GM kept using it anyway,
23 did not recall or repair the Class Vehicles to correct it, and still has not told consumers about it.

24
25 ¹⁸ “GM seeks to delay recall of 1 million vehicles with Takata air bag inflators.” *Reuters*,
26 September 16, 2016. Available at: [https://www.reuters.com/article/us-gm-recall/gm-seeks-to-](https://www.reuters.com/article/us-gm-recall/gm-seeks-to-delay-recall-of-1-million-vehicles-with-takata-air-bag-inflators-idUSKCN11M27N)
27 [delay-recall-of-1-million-vehicles-with-takata-air-bag-inflators-idUSKCN11M27N](https://www.reuters.com/article/us-gm-recall/gm-seeks-to-delay-recall-of-1-million-vehicles-with-takata-air-bag-inflators-idUSKCN11M27N) (last visited
28 July 27, 2023).

¹⁹ *Id.*

²⁰ “GM will recall 7 million vehicles for air bag issue worldwide.” *Reuters*, November 23, 2020.
Available at: [https://www.reuters.com/article/us-gm-recall/gm-will-recall-7-million-vehicles-for-](https://www.reuters.com/article/us-gm-recall/gm-will-recall-7-million-vehicles-for-air-bag-issue-worldwide-idUSKBN2831TH)
[air-bag-issue-worldwide-idUSKBN2831TH](https://www.reuters.com/article/us-gm-recall/gm-will-recall-7-million-vehicles-for-air-bag-issue-worldwide-idUSKBN2831TH) (last visited July 27, 2023).

1 **1. Old GM recklessly downplayed serious risks of injury when it chose to**
 2 **include the SDM Calibration Defect in the Class Vehicles.**

3 56. In general, the vehicle manufacturer provides the requirements to set the
 4 deployment thresholds in the SDM software calibration that will trigger a command to fire the
 5 airbags and/or tighten the seatbelts. The vehicle manufacturer uses results from laboratory crash
 6 testing to inform these parameters.²¹

7 57. But laboratory results are not sufficient in themselves, because real-world
 8 accidents—which can occur from multiple angles and involve inputs from myriad variables like
 9 weather, temperature, or incline—will differ from the testing environment.²² For that reason,
 10 manufacturers must exercise appropriate care to design crash sensing frameworks that function to
 11 keep people safe in the real world.

12 58. As relevant to the defect here, Old GM worked with Delco Electronics (later called
 13 Delphi Electronics, now known as Aptiv) to select and install SDM models and develop the SDM
 14 software program used in the Class Vehicles, starting with Model Year 1999. As to the physical
 15 component, Old GM installed Delco SDMs in many of its vehicles, including all the Class
 16 Vehicles. The model names for Delco SDMs have changed over time, and have included, from
 17 earliest to latest, models known as the SDM-GS,²³ SDM-11, SDM30, and others. GM continued
 18 to use Delco SDMs and the defective calibration in its vehicles after it was formed in 2009,
 19 including in all the Class Vehicles.

20 59. In addition to the Delco hardware, GM also worked with Delco to develop and
 21 implement the software that controls the SDMs. To that end, Delco developed a proposed
 22 software program, known originally as ALGO-S, and presented it to Old GM for review.

23 60. During this time, Old GM divided the design and development of its vehicles into
 24 a “cars” group and a “trucks” group, with the Trucks Group responsible for design, development,
 25 and production of larger model trucks and SUVs. After it reviewed the Delco team’s proposed
 26

27 ²¹ Huffman, *supra* note 9.

28 ²² Solomon, *supra* note 10, at 13.

²³ The SDM-GS is the SDM model included in Mr. Nossar’s 2005 Trailblazer, which would have
 been in development during Mr. Caruso’s tenure with Delco, which ended in 2006.

1 SDM software algorithm, ALGO-S, the Trucks Group insisted on adding the aggressive and
2 premature cut off when it calibrated that program for use in its trucks and SUVs. Specifically, the
3 Trucks Group insisted on a limit at approximately 45 milliseconds, well before a real-world
4 accident could foreseeably require airbag deployment.

5 61. The premature cut off was dictated by GM Trucks as part of its calibration strategy
6 for all vehicles within the fleet. This means that regardless of any differences across makes and
7 model years, all vehicles under the direction of the Trucks Group include SDM software that was
8 calibrated to meet GM Trucks' guiding philosophy for when and how the safety systems will
9 deploy, which included the SDM Calibration Defect.

10 62. On information and belief, the Trucks Group insisted on this cutoff based on test
11 results which indicated that frontal-barrier accidents (i.e., a simulated, single-impact crash into a
12 hard barrier) in its trucks and SUVs would not require airbag deployment after approximately 45
13 milliseconds or less in laboratory conditions.

14 63. In response, the Delco team expressly warned the Trucks Group that such an
15 aggressive cutoff could fail to capture additional signals in complex crashes outside of the
16 laboratory, leaving occupants completely unprotected during prolonged onset crashes or crashes
17 with multiple impact points. Put another way, using a limit derived from laboratory testing results
18 was not reasonable or safe, because it fails to account for the complexities and durations of real
19 world crash events, which can reasonably and foreseeably take twice as long as the laboratory
20 tests to require airbag deployment. On information and belief, documents, records, and personnel
21 reflecting GM Trucks' insistence—over Delco's objection—to include this cutoff were passed on
22 from Old GM to New GM in 2009.

23 64. GM's own cars group, and on information and belief, other major vehicle
24 manufacturers throughout the industry, include a significantly longer window for the SDM to
25 detect a potential accident and deploy the airbags and seatbelts. Indeed, in the ALGO-S program
26 as it was originally designed by Delco, the window in which the airbags and seatbelts can deploy
27 in a crash is at a minimum *twice to three times* that used by GM Trucks. Delco's original design
28 reasonably allows for airbag and seatbelt deployment in real-world frontal crashes, which

1 themselves can endure for 100 or even 150 milliseconds.²⁴ As such, when GM trucks added the
 2 defective premature cutoff to the software calibration in the Class Vehicles, it dangerously
 3 prevented the airbags and seatbelts from functioning when a frontal crash may still be well
 4 underway.

5 65. Tellingly, after the Delco team repeated the same warnings about the Truck
 6 Group's proposed cutoff strategy to GM's cars group, the cars group rejected the shorter cutoff.
 7 Instead, the cars group used the ALGO-S software with a materially longer deployment window
 8 than GM Trucks group's proposal (a *minimum* of approximately 100 milliseconds for
 9 deployment). GM thus also ignored the cars group's decision in insisting on the dangerous
 10 calibration for trucks and SUVs.

11 66. Given their serious concerns about GM Trucks' deployment strategy, Mr. Caruso
 12 and his Delco team refused to release the defective software calibration for use in GM trucks and
 13 SUVs until Old GM signed a disclaimer of Delco's liability for the modified calibration. The
 14 Trucks Group still insisted on the defective calibration, signed the disclaimer, and the dangerous
 15 dead zone was added in the SDM software calibration used in GM trucks and SUVs.²⁵

16 67. This defective calibration was included in all of the trucks and SUVs under the
 17 direction of GM's Trucks Group, including all the Class Vehicles. This is so because, as
 18 explained above, the abrupt cutoff was part of a calibration philosophy that is not vehicle
 19 dependent, i.e., it was a decision on the overall strategy for safety system deployment that applied
 20 to all vehicles within the group, including all the Class Vehicles.

21 68. In practice, this meant that GM Trucks leadership set the calibration strategy for
 22 all vehicles within the Trucks group (including all the Class Vehicles), and the software engineers
 23 tasked with implementing that strategy for individual vehicle platforms were obligated to follow
 24 that strategy for all vehicles within the group—the strategy was not set, or adapted, at the
 25 individual vehicle level.

26
 27 ²⁴ Chan, *supra* note 6, at p. 169.

28 ²⁵ See Objection to Defendants' Motion for Partial Summary Judgment, *McCoy v. General Motors LLC*, Case No. X03- HHD-CV-20-6142910-S (Conn. Sup. Ct), available at: <https://civillinquiry.jud.ct.gov/DocumentInquiry/DocumentInquiry.aspx?DocumentNo=23354481>.

1 69. This group-level approach to vehicle software is logical from a cost and resources
2 standpoint; developing software algorithms is time intensive and expensive, making it effective
3 and ordinary practice to develop one algorithm for use across multiple vehicle makes and models.

4 70. This typical practice of using the same SDM software strategy for groups of
5 vehicles is evidenced by a prior recall conducted by GM in September 2016. Specifically, GM
6 previously recalled some 3,640,000 vehicles across three different model years (from 2014 to
7 2017) due to a “software defect” present in the SDM software in all of those vehicles. As GM
8 described it, the SDM software in *all of these* vehicles included the same “oscillation test” in the
9 software that could “interfere with the SDM’s proper deployment of frontal airbags or
10 pretensioners as required.”²⁶

11 71. This oscillation-test issue is distinct from the defect described in this case, but
12 GM’s use of the same software with the identical defective oscillation test in more than three and
13 a half million vehicles is evidence that GM developed and applied the same SDM software across
14 a very large range of makes and model years.

15 72. The widespread use of this same oscillation test in the SDM software used for a
16 wide variety of makes and models, including both GM cars and trucks, also supports Plaintiffs’
17 allegations in this case that both GM trucks and GM cars used the same SDM software algorithm
18 (which started as ALGO-S) to control the SDMs in the vehicles under their direction, but that GM
19 Trucks modified the algorithm as designed to include the SDM Calibration Defect.

20 73. Finally, the use of the same software calibration strategy across many different
21 vehicles is further supported by Mr. Caruso’s description of his work with Old GM in setting and
22 implementing the software calibration strategy for vehicles at the group level, for the Trucks
23 Group and cars group. *See, e.g.*, Nossar Report, *supra*, at p. 5 (Mr. Caruso recounting the “GM
24 Truck Groups’ edict to set certain crash sensor calibration parameters outside the recommended
25 minimum guidelines set by the crash sensing algorithm designers”).
26
27

28 ²⁶ *See* General Motors LLC Part 573 Vehicle Safety Recall Report, 16-V-651 (September 2016)
available at: <https://static.nhtsa.gov/odi/rcl/2016/RCLRPT-16V651-2475.PDF>.

2. **GM's aggressive cutoff was not necessary to protect against "late" airbag deployments.**

74. GM Trucks Group's insistence on the early cutoff after which the airbags and seatbelts cannot deploy was unjustified and unsafe.

75. On information and belief, the Trucks Group chose to set this aggressive cutoff due to concerns about the potential for airbags to deploy "too late" during an accident. But as the Trucks Group also knew, these concerns were unwarranted given technology that mitigated the risks of "late" airbag deployments.

76. A brief history of airbags in motor vehicles puts this dangerous decision in context. Before 1998, airbag systems were effectively one-size-fits-all. Designed to protect against only frontal crashes, these "first-generation" airbags were built to meet a standardized government test that required they protect an unbelted, midsize adult male dummy (175 pounds) in a 30-MPH crash into a rigid barrier.²⁷ To do so, an airbag had to fill up quickly with gas, resulting in a deployment speed of up to 200 MPH.²⁸

77. Not all vehicle occupants fit this description, however, and the intensity of first-generation airbag deployment could prove dangerous for children and those who were positioned too close to the bag when it inflated (for example, because they had already been thrown forward toward the steering wheel during an under-way accident).²⁹

78. Public perception about airbag safety in motor vehicles, and in turn, the vehicle manufacturers that sold them, turned increasingly unfavorable following reports of late and aggressive deployments in first-generation airbags. Both regulators and vehicle manufacturers recognized the need to address these issues.³⁰ Beginning in October 1995, NHTSA initiated a

²⁷ Jack Keebler, *Airbags Safe Insane? – Special Report*, Motortrend (Sept. 1, 2000), <https://www.motortrend.com/news/airbags-safe-insane-special-report/> (last visited July 27, 2023).

²⁸ *Id.*; see also David B. Ottaway & Warren Brown, *From Life Saver to Fatal Threat*, The Wash. Post (June 1, 1997), <https://www.washingtonpost.com/archive/politics/1997/06/01/from-life-saver-to-fatal-threat/56d05b9e-a1bc-49b7-beb4-43480762b25e/> (last visited July 27, 2023).

²⁹ Susan A. Ferguson & Lawrence W. Schneider, *An Overview of Frontal Airbag Performance with Changes in Frontal Crash-Test Requirements: Findings of the Blue Ribbon Panel for the Evaluation of Advanced Technology Airbags*, Traffic Injury Prevention 3 (Nov. 2008).

³⁰ U.S. Department of Transportation, NHTSA, *An Evaluation of the 1998–1999 Redesign of Frontal Air Bags*, NHTSA Technical Report No. DOT HS 810 685, p.11, (August 2006) [hereinafter "NHTSA Redesign Report"]; see also Ferguson & Schneider, *supra* note

1 series of actions to minimize and eventually eliminate the adverse effects of late and aggressive
2 airbag deployments while preserving their life-saving benefits.³¹

3 79. In 1997, NHTSA issued modified federal rules to allow automakers to reduce the
4 energy in frontal airbags. This led to “an industry-wide changeover” to “redesigned” airbags in
5 the very next model years (1998-1999).³² The “redesign” consisted of several new technological
6 innovations. The first and immediate solution was “depowered” airbags: automobile
7 manufacturers removed some of the gas-generating propellant or stored gas from the inflators to
8 reduce the pressure and velocity of deployments. This change alone was highly effective in
9 reducing low-to-moderate speed fatalities.³³

10 80. Other innovations to reduce the risk of aggressive deployments included reducing
11 the volume or rearward extent of airbags, positioning them further from occupants, revised
12 folding techniques, and tethering and shifting from pyrotechnic inflators to hybrids including
13 stored gas.³⁴

14 81. Old GM knew about and employed these new technologies in its vehicles. Indeed,
15 as the director of Old GM’s Safety Center Terry Connolly said in 2000, there were no significant
16 downsides to using this new “depowered” airbag technology, even for unbelted passengers.³⁵

17 82. Further innovations referred to as “advanced” or “smart” airbags followed soon
18 thereafter.³⁶ “Advanced” airbags alter deployment patterns according to feedback from several
19 sensors. These sensors tailor how the airbag deploys based on the severity of the crash, the size
20 and posture of the vehicle occupant, whether the occupant is wearing a seatbelt, and how close
21 the occupant is to the airbag.³⁷

24 30.

25 ³¹ NHTSA Redesign Report, *supra* note 31, at vii.

26 ³² *Id.*; see also Micah Wright, *The Hidden Dangers of Older Airbags*, MotorBiscuit (May 8, 2015), <https://web.archive.org/web/20220630111938/https://www.motorbiscuit.com/the-hidden-dangers-of-older-airbags> (last visited July 27, 2023).

27 ³³ See NHTSA Redesign Report, *supra* note 31 at 25.

28 ³⁴ *Id.* at vii.

³⁵ Keebler, *supra* note 27.

³⁶ See NHTSA Redesign Report, *supra* note 31 at p. 3.

³⁷ Wright, *supra* note 33.

83. Many “advanced” systems use dual-stage or multi-stage inflators. This means that they have two inflation stages that can be ignited sequentially or simultaneously depending on crash severity.

84. “Advanced” airbags phased into production beginning September 1, 2003 and were required in all new vehicles by September 1, 2006.³⁸

85. Thus, based on the depowered and advanced airbag technology starting in 1998 and 1999, the risks posed by “late” deployments in early generation airbags had greatly diminished. Indeed, while NHTSA estimates that more than 290 deaths were caused by frontal airbag inflation between 1990 and 2008, nearly 90 percent of those deaths occurred in vehicles manufactured before 1998 (i.e., with first-generation airbag technology).³⁹ Today, with this new technology, serious injuries from properly functioning airbags are rare.⁴⁰

86. Despite knowledge and use of the new technology mitigating the risks of late deployments, the Trucks Group still insisted on prematurely shutting off the airbags and seatbelts in the Class Vehicles long before the 100 millisecond minimum window reasonably required by real-world crashes, and used by GM’s own cars group. On information and belief, despite these well-established advancements in airbag technology outlined above, GM continued to use this same defective software calibration strategy in its vehicles in 2009 and beyond.

3. GM knew about a pattern of suspicious accidents involving the SDM Calibration Defect in the Class Vehicles.

87. GM’s reckless decision and continued disregard for clear warnings about the risks in shutting off the SDM too soon during an accident has had real and tragic consequences.

88. As outlined above, GM has known about the SDM Calibration Defect since it took over Old GM’s books, records, and personnel in 2009. GM has continued to accrue knowledge of the defect, and its serious consequences, in the years since. Indeed, GM has known about, investigated, and even litigated numerous crashes in which airbags suspiciously failed to deploy

³⁸ NHTSA Redesign Report, *supra* note 31, at vii.

³⁹ Insurance Institute for Highway Safety. “Airbags” (2021), available at: <https://www.iihs.org/topics/airbags> (last visited July 27, 2023).

⁴⁰ *Id.*

1 in multi-impact or prolonged-onset frontal crashes in the Class Vehicles—a clear indication of the
2 SDM Calibration Defect.

3 89. Despite obvious signs of a known and dangerous risk, GM concealed these
4 accidents and the SDM Calibration Defect from consumers and regulators to avoid or at least
5 delay a recall and the attendant costs and reputational damage therefrom. To date, GM has taken
6 no corrective action to repair or recall the Class Vehicles to address this defect.

7 a. **GM has litigated (and settled) many personal injury lawsuits**
8 **for suspicious airbag failures in the Class Vehicles.**

9 90. In addition to its institutional records and knowledge, GM was on notice of the
10 SDM Calibration Defect through litigating and settling personal injury lawsuits involving airbag
11 and seatbelt failures consistent with the SDM Calibration Defect.

12 91. As noted above, Chris Caruso has served as an expert witness in many of these
13 lawsuits. Mr. Caruso has “over 43 years working in the automotive engineering field.” Exhibit D
14 at 4. This includes work as an engineer for Old GM from 1979 to 1986. Thereafter, from 1986 to
15 2006, Mr. Caruso worked for Delco Electronics, where he was “involved in the development and
16 implementation of the second generation of airbag system on GM vehicles and their subsidiaries
17 in the US.” *Id.* at 1. Mr. Caruso also worked as a “lead engineer in the development of crash
18 sensor specifications and the airbag sensing systems for major OEM’s worldwide,” including Old
19 GM, and himself “designed the SDM crash sensing algorithms.” *Id.* at 1-2. Mr. Caruso worked
20 for Delco through August of 2006. Thereafter, he began work in his current role as a consultant
21 with Automotive Safety Consulting, where he has “served as a consultant for both plaintiffs and
22 defendants in numerous cases involving automotive safety systems, including cases involving
23 EDR/CDR downloads and readouts.” *Id.* at 4.

24 92. Mr. Caruso recounts much of this work experience and the history of the SDM
25 Calibration Defect in public documents in a case filed in 2011, just two years after GM was
26 formed.

27 93. In that case, Plaintiff James Nossar sued GM LLC following a crash in his 2005
28 Chevrolet Trailblazer (a Class Vehicle here). As detailed in that complaint, on or about February

1 25, 2010, Mr. Nossar drove his Trailblazer into the back of a 1999 Suburban “and sustained a
 2 moderate to severe frontal impact . . . at a rate of speed that exceeded the airbag system’s
 3 predetermined deployment threshold.” *See Nossar v. General Motors LLC*, Dkt. 4, Case No. 1:11-
 4 cv-02129 (N.D. Ga.). Despite this “significant frontal collision,” the airbag failed to deploy and
 5 seatbelt pretensioners failed to trigger. Without the airbag or seatbelt to protect him, Mr. Nossar’s
 6 head slammed into the steering wheel, which caused “fracturing practically every bone in his face
 7 and brain injuries.” *Id.*

8 94. In support of his claims, in April 2012, Mr. Nossar filed an expert report from
 9 Chris Caruso who, as explained above, is an expert in automotive crash sensing systems who
 10 worked for Delco engineering during the development of the defective SDM software calibration
 11 in the Class Vehicles. *See id.* at Dkt. 40-1.

12 95. In that report, Caruso detailed the same flaws in the SDM software calibration
 13 described herein. He explained that the airbag sensing system in the Trailblazer was “defective by
 14 design and has the potential to not deploy frontal impact airbags in high speed frontal impacts
 15 where conditions vary slightly from the perfect laboratory conditions where the system was
 16 designed and tested.” Based on Caruso’s experience working in the development of the SDM
 17 software, he related that there were concerns, due to the calibration, “that in longer duration, but
 18 high severity events and in concatenated events (such as a curb impact followed by a utility pole
 19 impact), the airbags would fail to deploy because the algorithm deployment thresholds were no
 20 longer active.” *Id.*

21 96. Caruso further explained that as that litigation proceeded into discovery, he would
 22 “expect to identify emails and other correspondence between GM Truck Engineers and Delphi
 23 Crash Sensor engineers discussing the concerns over GM Truck Groups’ edict to set certain crash
 24 sensor calibration parameters outside the recommended minimum guidelines set by the crash
 25 sensing algorithm designers [the Delphi/Delco engineers].” Caruso expected to obtain this
 26 corroborating evidence because he “ha[d] seen these documents before and kn[e]w the content,”
 27 and summarized that **“the calibration values result in premature turning off of algorithm**
 28

1 **thresholds which effectively disables the front airbags after 45 to 50ms.”** *Id.* (emphasis
2 added).

3 97. Mr. Caruso’s expectations as to what discovery would reveal are plausible because
4 of his contemporaneous experience with Delco and Old GM in the time period in which Mr.
5 Nossar’s vehicle was developed. Mr. Caruso left Delco in 2006, long after the development
6 concluded for Mr. Nossar’s model year 2005 vehicle. (Because vehicles are actually sold in their
7 model year, *i.e.*, 2008 vehicles are sold in 2008, their design and development, including for the
8 SDM software, predates the actual model year by, one, two, or more years).

9 98. As to Mr. Nossar’s 2005 Trailblazer specifically, Caruso observed that the vehicle
10 included a version of the SDM hardware known as the SDM-DS, and concluded:

- 11 • The airbags and seatbelts failed because, at the time the airbags should have
12 deployed, and consistent with the SDM Calibration Defect here, **“the SDM
calibration had already timed out after 45-50ms** after the crash started.”
- 13 • “In reviewing the crash performance of the sensing system for the subject vehicle,
14 with respect to the conditions of the subject crash, **it is clear that the calibration
values result in premature turning off of algorithm thresholds which
15 effectively disables the front airbags after 45 to 50ms.”**

16 99. “The failure by GM to understand the **risks of certain dictated calibration**
17 **values** [in the SDM software calibration] led directly to the design defect that rendered the frontal
18 impact airbag system in the 2005 Chevrolet Trailblazer defective and unreasonably dangerous in
19 certain field relevant, real-world crashes.” *Id.*

20 100. GM LLC, a named defendant in the *Nossar* case, clearly knew about and received
21 Mr. Caruso’s report outlining the history of these issues in the SDM software calibration.

22 101. The *Nossar* case and Mr. Caruso’s report support that Old GM continued to install
23 SDMs with the Calibration Defect in its vehicles at least through model year 2005.

24 102. More recently, Mark McCoy filed a lawsuit against GM LLC in 2020 after a
25 serious accident in his 2018 Sierra Denali 2500. *See McCoy v. General Motors LLC*, Case No.
26 X03- HHD-CV-20-6142910-S (Conn. Sup. Ct).
27
28

103. While on a freeway exit ramp, at a sharp turn, Mr. McCoy veered off the road, crashed into a fence, and then crashed into a trailer, before finally crashing into a construction vehicle parked near the ramp. None of the airbags in his vehicle deployed. As a result, Mr. McCoy sustained “catastrophic, painful and severely debilitating injuries,” including traumatic spinal injuries, total paralysis from the chest down, a traumatic brain injury, and a broken nose, among other injuries.⁴¹ Below is a picture of Mr. McCoy’s Denali after the crash:



104. Mr. Caruso also served as an expert for plaintiff in the *McCoy* case and submitted a detailed report in connection with summary judgment briefing in that matter.⁴² Therein, Mr.

⁴¹ See June 19, 2020 Amended Complaint, ¶ 8, *McCoy v. General Motors LLC*, Case No. X03-HHD-CV-20-6142910-S (Conn. Sup. Ct) (“McCoy”). Available at:

<https://civilinquiry.jud.ct.gov/DocumentInquiry/DocumentInquiry.aspx?DocumentNo=19161992>

⁴² Mr. Caruso’s opinions in the McCoy case became publicly available only after the April 2022 hearing on the Defendants’ motion to dismiss in this matter, and were also not available at the time Plaintiffs filed their amended complaint in October 2021.

1 Caruso described his history with the company, including warning Old GM against using the
 2 defective software calibration in trucks and SUVs, and his insistence on a disclaimer of liability
 3 before releasing the calibrations for use in the Class Vehicles.

4 105. Further, Mr. Caruso described his work after he left Delco in 2006 in failure-to-
 5 deploy lawsuits “where the root cause was determined to be the 45ms SHUTOFF criteria” [i.e.,
 6 the SDM Calibration Defect]” in “numerous” GM trucks and SUVs in “earlier model[s]” than
 7 model year 2018.⁴³

8 106. Through discovery in the *McCoy* matter, Mr. Caruso analyzed the actual software
 9 calibration file for the SDM software in Mr. McCoy’s model year 2018 vehicle. Based on his
 10 review of the file, Mr. Caruso concluded that the algorithm in the 2018 vehicle remained a “carry
 11 over” from the SDM software algorithm, ALGO-S, he himself designed years prior. Exhibit D at
 12 16. Moreover, Caruso concluded that GM’s dangerous and defective philosophy about airbag
 13 deployment timing persisted in the 2018 Sierra. Put another way, GM “appeared to be using **very**
 14 **similar shutoff times in this calibration**” to those he had previously objected to in earlier model
 15 years in which GM “forc[ed] the use of 45ms shutoff times.” *Id.* at 18.

16 107. Specifically, in the *McCoy* software, Caruso observed shutoff times at 50
 17 milliseconds, consistent with his earlier testimony in *Nossar* that the cutoff occurred at
 18 approximately 45-50 milliseconds, and others that were even shorter, at 16 milliseconds.

19 108. Whether 45, 50, or even 16 milliseconds, each of these cutoff calibrations is
 20 defective in the same way, because none are sufficient to account for real world crash events, or
 21 come even close to the minimum used by GM cars. Put another way, each creates a “dead zone”
 22 far short of the time window needed for deployment in real world crashes, which is the defect that
 23 underlies Plaintiffs’ claims.

24 109. The persistence of this defective calibration cutoff strategy in a GM truck sold at
 25 least 12 years after he stopped working for Delco came as some surprise to Caruso. Indeed, he
 26 “had believed” GM would have discontinued the use of the dangerous calibration prior to model
 27 year 2018. But the software itself told a different story. In summary, based on the actual software,
 28

⁴³ Mr. Caruso’s report in the McCoy matter is attached hereto as Exhibit D. *See id.* at 19.

discovery produced in that case, as well as the crash conditions from the McCoy accident, Caruso opined:

- “The failure to deploy [the] airbags resulted in a condition that was defective, unsafe and unreasonably dangerous” to the driver in this vehicle;
- “[I]t appears that [GM trucks Group] is **still employing very aggressive stop times**” in its software calibrations as of model year 2018; and
- GM should have implemented an “alternative design” to “[m]odify the algorithm calibrations with more robust 120-150ms” cutoff thresholds.

See Exhibit D.

110. Caruso’s report in the *McCoy* case—notably based on his review of the actual software calibration—demonstrates that at least through model year 2018, GM continued to install Delco SDMs governed by dangerous cutoff thresholds in calibrations based on the original ALGO-S software algorithm. Although it had years to do so, even by 2018, GM had still failed to adopt a safer and more rational design that would allow for deployment for at least as long as the strategy used by GM cars (*i.e.*, approximately 100 milliseconds at a minimum for deployment).

111. Mr. Caruso also was able to identify the SDM hardware used in the McCoy vehicle as the Delco SDM30, which is evidence that GM continued to use the defective software calibration for all vehicles that contain that Delco SDM model. Publicly available crash data reports from NHTSA show the same Delco SDM30 was installed by GM in GM trucks in at least model years 2015 and 2016, including in the model year 2015 Chevrolet Trax, 2015 Chevrolet Tahoe, and 2016 Yukon Denali.

112. Likewise, on information and belief, Plaintiffs Vargas, Ray, and Milstead’s Class Vehicles contain SDM-11 model Delco SDMs. Given their model years and the Delco SDM, the plausible, and most reasonable, inference is that they also included the associated defective calibration strategy GM used with Delco SDMs.

113. Based on: (1) Mr. Caruso’s early knowledge of the SDM Calibration Defect when it was first used; (2) his subsequent tenure with Delco through 2006, during which model year vehicles for subsequent years were already in development; (3) his expert opinion on the presence of the SDM Calibration Defect in a model year 2005 vehicle (*Nossar*) after his assessment of the

1 vehicle performance and crash dynamics; and (4) his opinion about defect's persistence in a
 2 model year 2018 vehicle with the Delco SDM30 (*McCoy*)—the plausible, and most reasonable,
 3 inference is that the defect persisted in the years between 1999, 2005 and 2018.

4 114. Following service of Mr. Caruso's expert report and deposition in the *McCoy* case,
 5 GM agreed to settle the case in December 2022.⁴⁴

6 115. In addition, Chad Vaith filed a lawsuit against GM LLC in 2017 after an accident
 7 in his MY 2014 Silverado. As that complaint relates, in December 2015, Mr. Vaith was involved
 8 in an accident in which he drove his Silverado "off the road into a ditch," after which he
 9 "continued through the ditch for approximately forty yards before launching over the
 10 driveway/culvert. . . before coming to a final rest approximately twenty yards south." *See Vaith v.*
 11 *General Motors LLC*, Dkt. 1, Case No. 18-cv-00031 (D. Minn.). Despite multiple impacts in that
 12 prolonged accident, the airbags and seatbelts did not deploy, causing Mr. Vaith to "suffer severe
 13 personal injuries." Mr. Caruso was a disclosed expert for plaintiff in that case, although his
 14 opinions about the 2014 Silverado were not publicly filed. *See, e.g., id.* at Dkt. 64.

15 116. Mr. Vaith's case proceeded into fact discovery and ultimately resulted in a
 16 "negotiated settlement" between Mr. Vaith and GM. *Id.* at Dkt. 82.

17 117. In addition to these previous lawsuits against GM with Mr. Caruso as an expert,
 18 another automotive crash expert, Sal Fariello, wrote directly to GM's CEO Mary Barra twice in
 19 December 2016 to raise similar concerns about issues he had observed in the airbag sensing
 20 system in model year 2006 GM SUVs. Mr. Fariello's letters are available in NHTSA's public
 21 records.⁴⁵

22 118. Mr. Fariello's letters to GM's CEO focused on an accident in a 2006 Trailblazer (a
 23 Class Vehicle here) for which he served as a litigation consultant in a lawsuit filed in or around
 24

25 ⁴⁴ Plaintiffs' allegation of a settlement is supported by plaintiff's request in *McCoy* in October
 26 2022 for additional time to withdraw the case because "additional time is necessary to exchange
 27 the necessary settlement documents." *See McCoy*, October 19, 2022 CaseFlow Request. Plaintiff
 28 then withdrew the matter last month, in December 2022. *See* December 19, 2022 Withdrawal of
 Action, *McCoy v. General Motors LLC*, Case No. X03- HHD-CV-20-6142910-S (Conn. Sup. Ct).
⁴⁵ Mr. Fariello is a forensic crash investigator. *See* Bill Saporito, "Air Bag Blow Out," *Time*
Magazine, (December 4, 2014). Available at: <https://time.com/3617681/the-air-bag-blowout> (last
 visited July 27, 2023).

2014. Therein, he lists multiple technical issues with the airbag sensing system that he wanted to bring to GM’s attention and urge them to address. For example, he cautions that, in his view:

a. “The deployment thresholds [i.e., the inputs that will trigger deployment] for the airbag were set too high and compromised driver and passenger safety as a result of GM’s improper effort to mitigate lawsuits related to relatively low speed deployments of the airbag.”;

b. “The deployment threshold did not meet GM’s and generally accepted standards for when an airbag should deploy in order to prevent occupant death based on written technical papers and educational videos produced by GM or its employees.”; and

c. “Failure of the SDM to independently process a crash pulse and deploy the airbag implicates a defective software algorithm; specifically ‘Algo S-H’ [the software algorithm in the Class Vehicles].”

119. At the time, in 2016, Mr. Fariello proposed that the SDM could be re-programmed “with a more responsive algorithm” to resolve these issues, and that GM’s “only apparent motive for not doing this related to the cost of implementing a recall.”

120. Frustrated by the response he received from GM’s counsel in response to these letters, Mr. Fariello then wrote to Senator Bill Nelson of Florida enclosing his correspondence to GM and escalating his concerns. Senator Nelson then forwarded that correspondence to NHTSA.⁴⁶

121. As Mr. Fariello concluded, in his view, GM was stalling on this issue “just as they did with the Takata airbag matter.”

122. In April 2016, plaintiff Kayla Greenwood filed suit against GM on behalf of her deceased parent, Galen Greenwood. *See Greenwood v. General Motors LLC and General Motors Company*, Dkt. 1, Case No. 16-cv-00149 (M.D. GA). Galen Greenwood was fatally injured when his “airbag failed to deploy and his seat belt failed to properly restrain him” during a multi-impact crash in his 2006 GM SUV, a Chevrolet Equinox—hallmarks of the SDM Calibration Defect. *Id.* Specifically, “Mr. Greenwood lost control of the subject vehicle, traveled over the northbound

⁴⁶ Mr. Fariello’s letters to GM and further documentation are available at: <https://static.nhtsa.gov/odi/cmpl/2017/CL-10955948-3381.pdf> (last visited July 27, 2023).

lane and onto the west shoulder in a gradual manner, and impacted two trees with the front of the subject vehicle. During the incident sequence, the driver's side airbag failed to deploy and the seat belt failed to properly restrain Plaintiff's decedent. During the impact, Galen Greenwood suffered severe injuries which resulted in his death." *Id.* GM settled with Ms. Greenwood in May 2017. *See id.* Dkt. 20-1.⁴⁷

123. Finally, in 2022, Jerome and Cedric Woods filed suit against MFA Oil Company in Missouri state court as survivors of Richard Stinson. Mr. Stinson was killed when his 2009 Chevrolet Silverado truck crashed into an MFA Oil Company truck in November 2021. Mr. Stinson's Silverado was traveling at approximately 46 miles per hour at the time of the collision, and despite the serious "extent of the damage," the speed of the accident, and the change in velocity from the impact, his airbags did not deploy.

124. In or about March 2023, defendant MFA Oil Company filed a third party petition against General Motors LLC in the *Woods* case. As MFA contends in that third party petition:

- "Upon information and belief, the airbag system on the Silverado was designed to not deploy under circumstances when the change in velocity of the vehicle [i.e., a deployment threshold input] **in the initial 45 milliseconds after the initiation of a collision event was under a set rate regardless of the change in velocity of the vehicle after the initial 45 milliseconds**, including a situation such as the collision in this case in which a change in velocity was recorded to exceed 37 miles per hour during the sequence of the collision."
- **The design settings for deployment of the driver's side airbag on the Silverado were defective and unreasonably dangerous because the settings prevented deployment of the driver's side airbag** under circumstances such as the collision at issue in this case in which the change in velocity of the vehicle exceeded 37 miles per hour and in which the deployment of the airbag could or would have reduced or entirely avoided serious or fatal injuries such as the injuries Stinson sustained.⁴⁸

125. The *Woods* litigation on Mr. Stinson's behalf continues.

⁴⁷ In the *McCoy* matter, GM's designated corporate witness testified that he had previously offered testimony in a personal injury lawsuit about a crash where a vehicle "went off the roadway and struck a tree," where the plaintiff's name was Greenwood. On information and belief, GM's corporate designee in the *McCoy* matter was thus also a deponent in this settled Greenwood lawsuit, demonstrating further corporate knowledge of persistent injuries from the SDM Calibration Defect in the field.

⁴⁸ *See Third-Party Plaintiffs' Petition, Woods v. MFA Oil Company v. General Motors LLC*, Case No. 22-NM-CV00032 (New Madrid Circuit Court, Missouri).

126. Taken together, these and other allegations support the existence of the SDM Calibration Defect and the reasonable inference that Plaintiffs' model years 2010 and 2012 GM trucks and SUVs included it. Specifically, given that: (1) the model years of Plaintiffs' Class Vehicles were developed *after* Old GM first used the defective Software Calibration in or about 1999, and not long after Mr. Caruso left his role with Delco in 2006 (during which subsequent model years were already in development); (2) Plaintiffs' Class Vehicles predate the 2018 vehicle in which Mr. Caruso reviewed the software calibration, and concluded that the algorithm still reflects GM's flawed strategy to cutoff deployment too early, including "very similar shutoff times" to those he had originally raised concerns about twenty years earlier; (3) corroborating instances between those two bookends (1999 and 2018) support the persistence of the defective calibration in the intervening model years (i.e., *Nossar, Vaith, Greenwood, Woods, and Fariello's* letters, discussed *supra*); and (4) the broad, cross-model way that SDM software calibration strategy is set and implemented across GM's fleet within a given model year, the plausible, and most reasonable inference is that GM installed the same defective calibration in all its trucks and SUVs at least through model year 2018.

b. GM knew or should have known about hundreds of publicly reported airbag failures in the Class Vehicles.

127. GM was also on notice of the SDM Calibration Defect and its attendant safety risks from consumer complaints. These complaints are publicly available online through NHTSA's website. Between 1999 and the present, hundreds of consumers reported to NHTSA that airbags and/or seatbelts had suspiciously failed during frontal crashes involving concatenated (multiple) impacts or potentially prolonged crash onsets. New allegations—including Mr. Caruso's report showing the defective cutoff strategy continued in a model year 2018 vehicle—make the below crashes even more suspicious as relevant incidents with the hallmarks of the SDM Calibration Defect (airbag and seatbelt failures in concatenated and prolonged frontal impacts) in the very vehicles alleged to be impacted by that Defect (GM trucks and SUVs).

128. On information and belief, vehicle manufacturers such as GM monitor these public databases for complaints about their vehicles, considering their statutory obligations to report

1 known safety defects in their vehicles to NHTSA and to consumers. Moreover, in many of these
 2 reports, it is expressly clear that GM was directly informed of, and even investigated, the accident
 3 in question. While GM has access to the full body of these complaints from 1999 and onward in
 4 the public database, it bears mention that over three hundred of them were filed after the new GM
 5 entities were created in 2009.⁴⁹

6 129. One such complaint details an accident in a 2004 Chevrolet Trailblazer in August
 7 2014. The driver states that they were traveling 50 MPH on a four-lane highway where another
 8 vehicle, waiting to U-turn, “decided to turn right into me—oncoming traffic.” The vehicles
 9 crashed, which then “sent [the driver] into a head on collision with the guard rail.” The driver
 10 questions that “there were 2 incidents in that sequence of events that the airbags should have
 11 deployed, but did not! This accident caused several injuries to myself and my passenger. We
 12 definitely could have been killed and no airbags to help save our lives...” Photos of the damage to
 13 the vehicle from that accident follow. (NHTSA Complaint #1100694).



49 Many publicly reported accidents occurred prior to 2009, which information would likewise have been available to Old GM. GM would have acquired Old GM’s knowledge of these accidents, reflected in its books, records, and personnel, when it was formed in 2009.



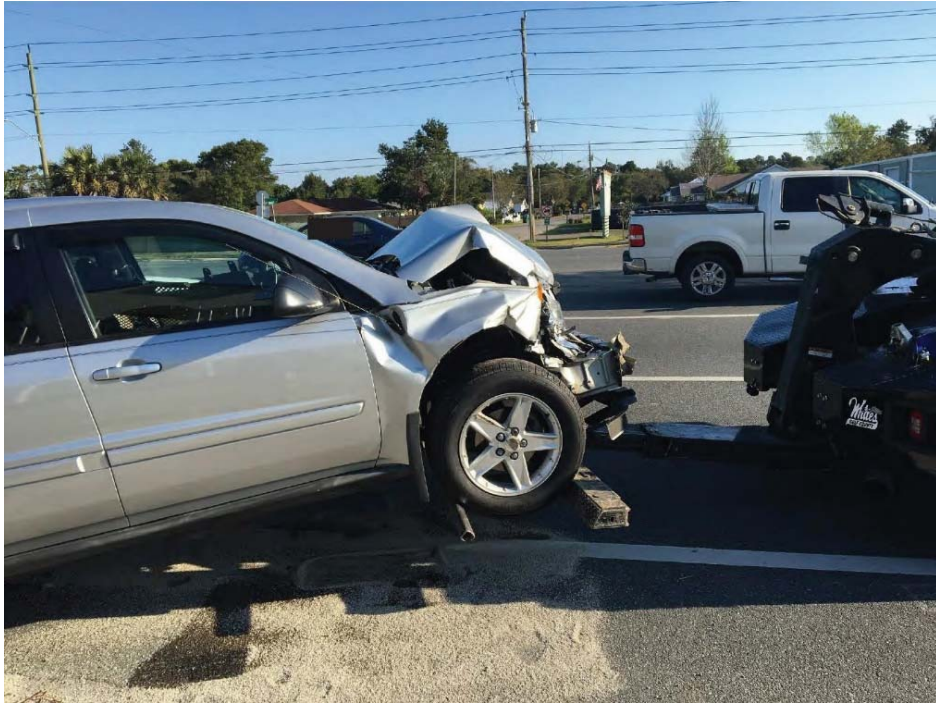
130. Another report describes a September 2012 accident in a 2005 Chevrolet Trailblazer. It states that the driver, at 30 MPH, swerved to avoid a deer in the road, which caused the vehicle to lose control, exit the road, and ultimately “crash[] off a 9 foot embankment.” From there, the vehicle continued to crash through a field, into a dirt levy, and finally into a drainage ditch. None of the airbags deployed. The driver “became unconscious after his head crashed into the steering wheel” and “suffered severe neck injuries.” The dealer later inspected the vehicle but responded that the results were “inconclusive” and that the manufacturer “was notified but offered no assistance.” Photos of the damage to the vehicle from that accident follow. (NHTSA Complaint #942950).⁵⁰

⁵⁰ Accident documentation and photos are available at: <https://static.nhtsa.gov/odi/cmpl/2012/EQ-10477257-8767.pdf> (last visited July 27, 2023).

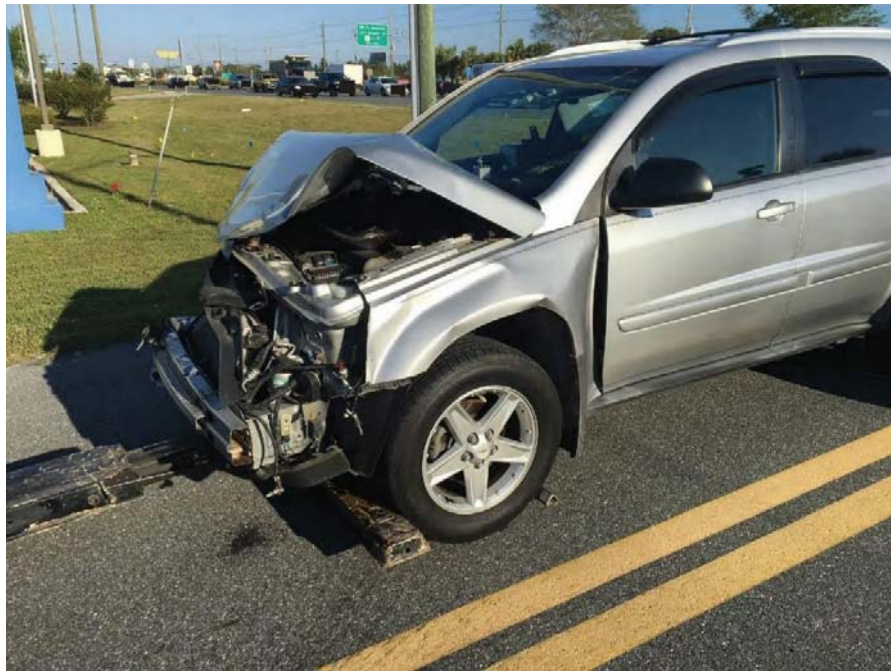


131. In another example, the complaint describes a serious accident in March 2019 involving a 2005 Chevrolet Equinox. The vehicle crashed into the front of another vehicle at 35

1 MPH. The airbags did not deploy. The driver sustained injuries to the head and ankle and
 2 required medical attention. Photos of the damage to the vehicle from that accident follow.



132. (NHTSA Complaint #1550406).⁵¹



133. Another account of a July 2007 accident in a model year 2001 Isuzu Rodeo
 describes a crash at 65 MPH so severe that “the median on the highway sustained property

⁵¹ Photos and accident information are available at: <https://static.nhtsa.gov/odi/cmpl/2019/EQ-11191960-7090.pdf> (last visited July 27, 2023).

1 damage” and “the vehicle was destroyed,” but the airbags did not deploy. This is how the vehicle
 2 looked after that accident:



13 134. Additional examples of similarly suspicious frontal accidents—i.e., frontal
 14 accidents with multiple discrete impacts, or potentially prolonged onset frontal crashes involving
 15 “soft” impacts—in which the airbags and/or seatbelts failed include:

16 a. NHTSA complaint #753287 dated Tuesday, October 16, 2001, reported an
 17 accident on Monday, October 8, 2001 involving a 1999 CHEVROLET SUBURBAN in Andover,
 18 KS. The complaint states: “60 MPH CROSS WIND BLEW THE SUBURBAN HEAD ON INTO
 19 THE CONCRETE MEDIAN. THE VEHICLE SPUN 360 DEGREES, WENT INTO THE
 20 DITCH, THE FRONT END HIT AGAIN THE VEHICLE WENT UP THE OTHER SIDE OF
 21 THE EMBANKMENT AND STOPPED IN A FIELD. ENTIRE FRONT END OF THE FRAME
 22 NOT REPAIRABLE . . . FRONT CROSSMEMBER BENT AND ENGINE MOVED
 23 UPWARDS AT A 10 DEGREE ANGLE. **AIR BAGS FAILED TO DEPLOY.** *AK”⁵²

24 b. NHTSA complaint #859858 dated Friday, April 7, 2000, reported an
 25 accident on Saturday, April 3, 1999 involving a 1999 CHEVROLET SILVERADO. The
 26 complaint states: “WHILE TRAVELING ON A WET ROAD AT HIGHWAY SPEED OF 60
 27 MPH VEHICLE HYDROPLANED, SPUN INTO A DITCH, AND COLLIDED INTO A TREE
 28

⁵² Emphasis is supplied here and in the paragraphs that follow.

1 WITH BOTH SIDES AND FRONT OF VEHICLE. **UPON IMPACT, AIR BAGS FAILED TO**
 2 **DEPLOY.** MFR. NOTIFIED. *AK”

3 c. NHTSA complaint #877320 dated Wednesday, January 3, 2001, reported
 4 an accident on Friday, December 1, 2000 involving a 1999 CHEVROLET SUBURBAN in
 5 Amarillo, TX. The complaint states: “CONSUMER WAS TRAVELING ABOUT 40MPH ON
 6 HIGHWAY AND ANOTHER VEHICLE VEERED INTO HER LANE, HITTING HER HEAD-
 7 ON, AND PUSHING VEHICLE INTO ANOTHER LANE. **VEHICLE HIT TELEPHONE**
 8 **POLE, AND DUAL AIRBAGS DIDN'T DEPLOY.** CONSUMER WAS INJURED.
 9 CHEVROLET HAS BEEN NOTIFIED. *AK”

10 d. NHTSA complaint #10060150 dated Tuesday, March 2, 2004, reported an
 11 accident on Tuesday, February 24, 2004 involving a 2001 CHEVROLET BLAZER in Austin,
 12 TX. The complaint states: “**DRIVER SIDE AIR BAG FAILED TO DEPLOY IN A CRASH**
 13 **THROUGH: 1. A SIX FOOT TALL WOODEN FENCE AT ALMOST 30MPH, THEN 2. THE**
 14 **EXTERIOR SIDE OF A 2-STORY HOME THAT CONTAINED THE KITCHEN SINK AND**
 15 **PLUMBING FIXTURES, WHILE SMASHING UP AND OVER THE FIFTEEN-INCH**
 16 **CONCRETE FOUNDATION, FRONT-END FIRST.*AK”**

17 e. NHTSA complaint #10082050 dated Thursday, July 15, 2004, reported an
 18 accident on Wednesday, July 14, 2004 involving a 2003 CHEVROLET SUBURBAN in Fresno,
 19 CA. The complaint states: “THE CONSUMER WAS INVOLVED IN AN ACCIDENT WHERE
 20 IT WAS HIT FROM THE FRONT DRIVER SIDE, THE IMPACT CAUSED THE VEHICLE
 21 TO HIT A TELEPHONE POLE HEAD ON. **THE AIR BAGS DID NOT DEPLOY.** *JB”

22 f. NHTSA complaint #10103512 dated Friday, December 10, 2004, reported
 23 an accident on Sunday, December 5, 2004 involving a 2001 CHEVROLET SILVERADO in
 24 Rialto, CA. The complaint states: “CONSUMER’S VEHICLE WAS REAR ENDED WHILE
 25 DRIVING 50 MPH. THE VEHICLE WAS FORCE[D] INTO A SPIN AND THEN, IT HIT A
 26 CONCRETE ROAD DIVIDER. UPON IMPACT, **NEITHER FRONTAL AIR BAGS**
 27 **DEPLOYED.** DRIVER SUSTAINED INJURIES, AND HAD TO BE TRANSPORTED TO A
 28 LOCAL HOSPITAL. DEALER AND MANUFACTURER WERE NOTIFIED. THE

1 CONSUMER STATED THAT THE SEAT BELT DID NOT KEEP HER FROM HITTING HER
2 CHEST ON THE STEERING WHEEL.”

3 g. NHTSA complaint #10108404 dated Tuesday, February 1, 2005, reported
4 an accident on Tuesday, January 11, 2005 involving a 2000 CHEVROLET SILVERADO in
5 Toney, AL. The complaint states: “A CAR PULLED OUT IN FRONT OF ME WHICH STILL
6 HIT THE DRIVER'S SIDE OF MY VEHICLE (2000 CHEVY SILVERADO). **THEN MY**
7 **TRUCK HAD A FULL FRONTAL IMPACT AT GREATER THAN 30 MPH INTO A**
8 **DIRT WALL IN WHICH NEITHER THE DRIVER'S NOR PASSENGER'S AIRBAGS**
9 **DEPLOYED (THE TRUCK IS TOTALLED).** I HIT THE STEERING WHEEL AND GOT A
10 CONCUSSION WITH BLOOD AROUND THE BRAIN, A BROKE CHEEK BONE, AND
11 FRACTURED HIP. MY WIFE WAS 33 WEEKS PREGNANT AT THE TIME AND HER
12 WATER BROKE AND SHE GOT A COMPOUND FRACTURE IN THE LOWER
13 LEG/ANKLE. AS A RESULT OF THE WATER BREAKING MY SON WAS BORN 3 DAYS
14 LATER 7 WEEKS PREMATURE. AS FOR WHAT WAS DONE TO CORRECT THE
15 PROBLEM I'M HOPING IT WILL AT LEAST BE INVESTIGATED TO MAKE SURE THIS
16 IS NOT A SYSTEMIC PROBLEM (I.E., SOFTWARE SCREWUP SOMETHING NOT
17 HOOKED UP RIGHT IN THE AIRBAG SYSTEM ETC).”

18 h. NHTSA complaint #10115806 dated Thursday, March 24, 2005, reported
19 an accident on Thursday, March 24, 2005 involving a 2002 CHEVROLET SILVERADO in
20 Claremore, OK. The complaint states: “A PIECE OF FURNITURE WAS LOCATED IN THE
21 MIDDLE OF THE HIGHWAY WHILE DRIVING, CAUSING THE DRIVER TO HIT THE
22 FURNITURE. DRIVER LOST CONTROL OF A VEHICLE, AND IT CRASHED INTO A
23 CONCRETE WALL. DRIVER'S SIDE SEAT BELT FAILED, AND **THE AIRBAGS DID**
24 **NOT DEPLOY.**”

25 i. NHTSA complaint #10158090 dated Tuesday, May 23, 2006, reported an
26 accident on Sunday, February 26, 2006 involving a 2004 CHEVROLET TRAILBLAZER in
27 Fayetteville, NC. The complaint states: “DT*: THE CONTACT STATED WHILE DRIVING 50
28 MPH THE VEHICLE WAS INVOLVED IN A HEAD ON COLLISION WITH ANOTHER

1 VEHICLE. THE VEHICLE CONTINUED MOVING AND STOPPED BY COLLIDING WITH
 2 A STORE SIGN. **THE AIR BAGS DID NOT DEPLOY** AND SEAT BELTS WERE WORN . .
 3 . THE INSURANCE COMPANY DETERMINED THE VEHICLE WAS TOTALED DUE TO
 4 THE ACCIDENT. THE DEALER DOES NOT HAVE THE MEANS TO TEST FOR AIR BAG
 5 NON-DEPLOYMENT. UPDATED 1/24/2007 - *NM”

6 j. NHTSA complaint #10161658 dated Thursday, July 6, 2006, reported an
 7 accident on Saturday, June 3, 2006 involving a 1999 CHEVROLET BLAZER in Ludlow, MA.
 8 The complaint states in part: “CHEVY DRIVER HIT A CAR IN HER LANE FIRST, THEN
 9 RICOCHETED HEAD ON INTO A TREE. **NEITHER TIME DID AIRBAGS DEPLOY.**
 10 *TT”

11 k. NHTSA complaint #10163811 dated Friday, July 28, 2006, reported an
 12 accident on Thursday, July 20, 2006 involving a 2000 ISUZU RODEO in Nederland, TX. The
 13 complaint states: “A GIRL RAN A RED LIGHT AND I HIT HER IN THE PASSENGER SIDE
 14 OF HER CAR HEAD ON WITH MY 2000 ISUZU RODEO. IT WAS A FULL FRONTAL
 15 COLLISION FOR ME AND MY CHILDREN. LUCKILY, WE ARE ALWAYS BUCKLED UP
 16 BECAUSE **NONE OF MY AIRBAGS DEPLOYED AT ALL.** THE OTHER CAR WAS
 17 GOING ABOUT 60 MPH AND HER AIRBAG DEPLOYED WHEN I HIT HER BUT MINE
 18 DID NOT. LUCKILY, MY CHILDREN WERE NOT HURT BADLY BUT
 19 UNFORTUNATELY, I SUSTAINED NECK, BACK AND KNEE INJURIES. I WAS AND
 20 STILL AM VERY UPSET THAT MY AIRBAGS FAILED. EVEN THE OWNER OF THE
 21 BODY SHOP I USE WAS IN SHOCK THAT THEY DID NOT DEPLOY AS THE IMPACT
 22 WAS ENOUGH TO SPLIT THE FRAME OF MY RODEO AND TOTAL IT OUT . . . THANK
 23 YOU FOR YOUR TIME, I HOPE I CAN HELP ANOTHER FAMILY FROM GETTING
 24 INJURED.”

25 l. NHTSA complaint #10217793 dated Tuesday, February 12, 2008, reported
 26 an accident on Thursday, February 7, 2008 involving a 2006 CHEVROLET TRAILBLAZER in
 27 Lakewood, OH. The complaint states: “A 2006 CHEVY TRAILBLAZER TRAVELING OVER
 28 THE SPEED LIMIT ON MY STREET CRASHED INTO A TREE, A PARKED CAR, AND

1 THEN CONTINUED TO ROLL OVER ACROSS MY FRONT LAWN, LANDING
 2 SIDEWAYS AFTER FLIPPING SEVERAL TIMES. THE OCCUPANTS WERE SEVERELY
 3 INJURED. **NO AIRBAGS DEPLOYED DURING THE CRASH.** THE DRIVER OF THE
 4 VEHICLE IS IN ICU NEEDING FACIAL RECONSTRUCTIVE SURGERY. *TR”

5 m. NHTSA complaint #10221319 dated Saturday, March 15, 2008, reported
 6 an accident on Thursday, February 21, 2008 involving a 2005 CHEVROLET TRAILBLAZER in
 7 Clay, NY. The complaint states: “I WAS DRIVING ON A 2 LANE ROAD GOING 45MPH. A
 8 CAR WAS FOLLOWING CLOSE BEHIND ME SO I WENT TO GET INTO RIGHT LANE
 9 AND MY TRUCK DID 5 360 AND HIT 3 TREES HEAD ON AND **AIR BAG NEVER**
 10 **DEPLOYED.** *TR”

11 n. NHTSA complaint #10263896 dated Wednesday, April 1, 2009, reported
 12 an accident on Thursday, March 26, 2009 involving a 2002 CHEVROLET TRAILBLAZER in
 13 Elizabeth, NJ. The complaint states: “I WAS IN A CAR ACCIDENT, WHERE I WAS
 14 TRAVELING AT ABOUT 35 MPH. AN AGGRESSIVE DRIVER SPEED AROUND ME AND
 15 CUT ME OFF AND THAN STOMPED ON THIS BRAKES IN FRONT OF ME. DUE TO
 16 THAT I SWERVED TO MISS HIM CLIPPING HIS RIGHT BACK LIGHT AD BUMPER
 17 WITH MY LEFT HEADLIGHT AND BUMPER. AS I WAS SWERVING I HIT A TREE JUST
 18 ABOUT DEAD ON WITH MY CAR . . . I HIT THE TREE AT A SPEED OF ABOUT 28-30
 19 MPH. AFTER INITIAL IMPACT I WAS RUSHED TO THE HOSPITAL DUE TO
 20 UNCONSCIOUS AND FACIAL CONTUSIONS. DURING THE FIRST MOMENTS AFTER
 21 THE ACCIDENT, ONE OF THE FIRST THINGS OFFICERS, EMTS AND WITNESSES SAID
 22 WAS “**I CAN'T BELIEVE THE AIRBAGS DIDN'T GO OFF.**” IN THE RECENT DAYS
 23 AFTER THE ACCIDENT I HAVE HAD SEVERAL MECHANICS AND SUCH APPRAISE
 24 THE CAR, THE ONE COMMON THEME THEY ALL SHARE IS THAT THEY SUSPECT
 25 THERE MIGHT NOT BE AN AIRBAG WHERE IT BELONGS. OR THE LACK THERE OF.
 26 *TR”

27 o. NHTSA complaint #10463248 dated Wednesday, June 27, 2012, reported
 28 an accident on Friday, July 15, 2011 involving a 2005 GMC in Richmond, VA. The complaint

1 states: “THE CONTACT STATED WHILE DRIVING 55 MPH, HE CRASHED INTO A TREE.
 2 **THE AIR BAGS FAILED TO DEPLOY . . .** A POLICE REPORT WAS FILED. THE
 3 MANUFACTURER WAS MADE AWARE OF THE FAILURE; HOWEVER, THEY
 4 PROVIDED NO ASSISTANCE . . . THE CONSUMER’S VEHICLE WAS DAMAGED WHEN
 5 HE TRIED TO AVOID HITTING THE VEHICLE BY SWERVING SIDEWAYS AND
 6 SLIDING INTO THE GRASS. HE TRIED STOPPING THE VEHICLE WHILE IT WAS STILL
 7 ON THE PAVEMENT BUT HE INEVITABLY RAN INTO THE DITCH AND FLEW
 8 AIRBORNE INTO A TREE, AND THE TRUCK OVERTURNED.”

9 p. NHTSA complaint #10524151 dated Wednesday, July 10, 2013, reported
 10 an accident on Thursday, May 30, 2013 involving a 2006 CHEVROLET TRAILBLAZER in
 11 Mansfield, OH. The complaint states: “THIS COMPLAINT IS BEING FILED ON BEHALF OF
 12 THE VEHICLE OWNER AND DRIVER. THIS CHEVY TRAILBLAZER WAS INVOLVED
 13 IN A TWO VEHICLE, DOUBLE FATAL CRASH. THE FRONT OF THE TRAILBLAZER
 14 STRUCK THE DRIVER'S SIDE DOOR OF A CAVALIER THAT FAILED TO YIELD FROM
 15 A STOP SIGN. THE TRAILBLAZER STAYED CONNECTED WITH THE CAVALIER,
 16 FORCING IT OFF THE LEFT SIDE OF THE ROADWAY AND INTO A LARGE TREE.
 17 BOTH OCCUPANTS IN THE CAVALIER WERE FATALLY INJURED. **THE FRONT**
 18 **AIRBAGS DID NOT DEPLOY ON THE TRAILBLAZER** AND NO EVENT WAS
 19 RECORDED ON THE AIRBAG CONTROL MODULE. *TR”

20 q. NHTSA complaint #10537593 dated Tuesday, August 27, 2013, reported
 21 an accident on Tuesday, August 13, 2013 involving a 2003 CHEVROLET BLAZER in Harrison
 22 Township, MI. The complaint states: “I WAS TRAVELING SOUTHBOUND WHEN I
 23 EXPERIENCED A SEIZURE AND LOST CONTROL OF MY VEHICLE. I PROCEEDED TO
 24 VEER TO THE LEFT WHERE I CLIPPED SEVERAL CARS THAT WERE HEADED
 25 NORTHBOUND . . . I THEN PROCEEDED OVER A TREE LAWN AND INTO A PARKING
 26 LOT. I HIT A DODGE RAM PICKUP WITH THE RIGHT FRONT CORNER OF MY
 27 VEHICLE AND PUSHED THAT VEHICLE INTO ANOTHER PARKED CAR THAT WAS
 28 NEXT TO IT. BOTH VEHICLES ENDED UP SIDEWAYS AND MY VEHICLE ENDED UP

1 SPUN AROUND 180 DEGREES . . . THE JAWS OF LIFE WERE USED TO EXTRACT ME
 2 FROM MY VEHICLE. I WAS TAKEN TO A LOCAL HOSPITAL WHERE IT WAS
 3 DETERMINED THAT I SUFFERED BURST FRACTURES OF L1, L2, AND L3. I ALSO
 4 SUFFERED AN EVULSION FRACTURE OF MY LEFT ANKLE. THE POLICE REPORT
 5 STATES THAT I WAS TRAVELLING AT A HIGH RATE OF SPEED AND THAT THE
 6 VEHICLES WHICH WERE NORTHBOUND WERE JUST CLIPPED. **THE AIRBAGS ARE**
 7 **BOTH STILL WITHIN THEIR CASES AS NEITHER DEPLOYED** . . . THE INSURANCE
 8 INVESTIGATOR EVEN EXPRESSED TO MY WIFE THAT HE WAS SURPRISED THAT
 9 THE AIR BAG DID NOT DEPLOY.”

10 r. NHTSA complaint #10550276 dated Wednesday, October 30, 2013,
 11 reported an accident on Monday, October 28, 2013 involving a 2006 CHEVROLET
 12 TRAILBLAZER in Neihart, MT. The complaint states: “TL* THE CONTACT OWNS A 2006
 13 CHEVROLET TRAILBLAZER. THE CONTACT STATED THAT WHILE DRIVING
 14 APPROXIMATELY 35 MPH, SHE LOST CONTROL OF THE VEHICLE WHILE DRIVING
 15 IN SNOWY WEATHER. THE VEHICLE NOSE DIVED INTO AN EMBANKMENT AND
 16 THEN CRASHED INTO A BOULDER. **THE AIR BAGS FAILED TO DEPLOY.** THE
 17 CONTACT WAS TRANSPORTED TO THE HOSPITAL VIA AMBULANCE FOR
 18 TREATMENT OF A CONCUSSION AND BRUISING. THE FRONT PASSENGER WAS
 19 ALSO INJURED AND SUSTAINED BRUISING. THE VEHICLE WAS DESTROYED. THE
 20 MANUFACTURER WAS MADE AWARE OF THE FAILURE.”

21 s. NHTSA complaint #10574295 dated Sunday, March 23, 2014, reported an
 22 accident on Friday, February 21, 2014 involving a 2010 GMC TERRAIN in Saint Joe, IN. The
 23 complaint states: “INVOLVED IN A 21 CAR PILE UP IN THE UPPER PENINSULA DURING
 24 A COMPLETE WHITE OUT. WE WERE ONLY TRAVELING APPROXIMATELY 25
 25 MILES PER HOUR BUT, WE DID HAVE SERIOUS IMPACT IN THE FRONT, AFTER
 26 HITTING A TRAILER AND ALSO SERIOUS IMPACT FROM BEHIND WHEN HIT BY A
 27 TRUCK AND TRAILER. **NO AIRBAGS DEPLOYED.** THE TRUCK TRAVELING AHEAD
 28 OF US, THAT WE HIT, THE AIRBAGS DID DEPLOY. MY FATHER AND BROTHER,

1 WHO WERE ALSO BOTH DRIVING CHEVY TRUCKS, AND ALSO HAD SERIOUS
2 FRONT END DAMAGE DURING THE SAME ACCIDENT, THEIR AIRBAGS DID NOT
3 DEPLOY EITHER. *TR”

4 t. NHTSA complaint #10576031 dated Monday, March 31, 2014, reported an
5 accident on Sunday, March 23, 2014 involving a 2012 CADILLAC SRX in Kaplan, LA. The
6 complaint states: “I FELL ASLEEP WHILE DRIVING, JUMPED A LEVEE, RAN THROUGH
7 A FENCE, AND WRECKED IN A GRASSY WATERY AREA. MY ENGINE WAS
8 SMASHED, THE MOTOR MOUNT BROKE, AND MY TIRES ARE PUSHED BACK. MY
9 **AIR BAGS DID NOT DEPLOY**. MY FACE HIT THE STEERING WHEEL AND MY NOSE
10 IS BROKEN. I WOULD LIKE TO FIND OUT IF THERE IS ANY RECALLS ON THIS CAR.

11 *TR”

12 u. NHTSA complaint #10583703 dated Saturday, April 19, 2014, reported an
13 accident on Thursday, March 13, 2014 involving a 2012 GMC TERRAIN in Moneta, VA. The
14 complaint states: “I INADVERTENTLY VEERED OFF SIDE ROADWAY, (VA HIGHWAY
15 220) COLLIDING WITH A TREE/ROADSIDE SHRUBS, ETC (WAS KNOCKED
16 UNCONSCIOUS AS FOREHEAD HIT STEERING WHEEL ON INITIAL IMPACT).
17 **AIRBAGS DID NOT DEPLOY** ALLOWING ME TO SUSTAIN A HEAD INJURY THAT
18 KNOCKED ME UNCONSCIOUS... FOREHEAD WAS GASHED WITH SIGNIFICANT
19 BLEEDING. I WAS TRANSPORTED BY AMBULANCE IN UNCONSCIOUS STATE.
20 DAMAGE TO VEHICLE IS IN EXCESS OF \$8,000 SO FAR AS VEHICLE STILL IN
21 REPAIR SHOP WITH MASSIVE FRONT END DAMAGE THAT AFFECTS STEERING
22 LINKAGE, ETC. THE IMPACT OF VEHICLE AGAINST FOLIAGE, TREES SHRUBS,
23 SHOULD HAVE FORCED AIR BAGS TO DEPLOY AND I BELIEVE THAT I WOULD NOT
24 HAVE SUSTAINED A HEAD INJURY THAT RENDERED ME UNCONSCIOUS WITH
25 MILD CONCUSSION AND COULD NOT CONTROL VEHICLE LEAVING ROADWAY.

26 *TR”

27 v. NHTSA complaint #10592423 dated Monday, May 19, 2014, reported an
28 accident on Thursday, May 8, 2014 involving a 2003 CHEVROLET SILVERADO in

1 Burtonsville, MD. The complaint states: “TRUCK COLIDED WITH GUARD RAIL.
 2 BOUNCED OFF, HIT VEHICLE 1, THEN INTO VEHICLE 2 THEN STOPPED AFTER
 3 HITTING VEHICLE 3 A SEMI TRUCK. ALL DAMAGE WAS DONE TO FRONT OF THE
 4 CHEVY SILVERADO. **AT NO TIME DID THE AIRBAGS DEPLOY.**”

5 w. NHTSA complaint #10622016 dated Wednesday, August 13, 2014,
 6 reported an accident on Saturday, August 9, 2014 involving a 2012 CHEVROLET TAHOE in
 7 The Colony, TX. The complaint states: “WHILE TURNING LEFT (TAHOE) WITH A
 8 PROTECTED GREEN ARROW AT AN X-SHAPED INTERSECTION, VEHICLE (KIA
 9 SEDAN) AT FAULT FAILED TO YIELD AND ENTERED THE INTERSECTION AT
 10 SPEEDS UPWARDS OF 40 MPH FROM THE LEFT OF THE TAHOE. FRONT-IMPACT
 11 COLLISION OCCURRED . . . TAHOE STRUCK PASSENGER SIDE OF KIA SEDAN.
 12 TRAJECTORY OF IMPACT CAUSED DIRECTIONAL CHANGES IN UPWARDS OF 90*
 13 FOR BOTH VEHICLES; THE FORCE OF THE PRIMARY ACCIDENT DESCRIBED ABOVE
 14 ALSO CAUSED MENTIONED VEHICLES TO COLLIDE WITH LEFT REAR OF ANOTHER
 15 VEHICLE (HONDA SEDAN) . . . DUE TO THE FORCE OF IMPACT, FRONT & SIDE
 16 AIRBAGS DEPLOYED ON BOTH THE KIA SEDAN AND THE HONDA SEDAN, BUT
 17 **FAILED TO DEPLOY ON THE TAHOE . . .** FORCE WAS SUCH THAT AFTER THE
 18 COLLISION, TAHOE TRANSMISSION WAS IN DRIVE, BUT REMAINED AT A
 19 COMPLETE STOP. DAMAGE SUSTAINED ON THE TAHOE INCLUDE FRONT-END
 20 BODY DAMAGE, ENGINE DAMAGE (VEHICLE REQUIRED TOWING AND WAS
 21 INOPERABLE), AND FRAME DAMAGE, AT A MINIMUM . . . MULTIPLE FIRST-
 22 RESPONDERS COMMENTED ON THE ODDITY THAT, GIVEN THE DAMAGE
 23 SUSTAINED BY THE TAHOE AND THE VELOCITY AT IMPACT, THE AIRBAGS
 24 DEPLOYED ON ALL VEHICLES BUT THE TAHOE. *TR”

25 x. NHTSA complaint #10641399 dated Saturday, October 4, 2014, reported
 26 an accident on Tuesday, June 7, 2011 involving a 2002 CHEVROLET TAHOE in Cheney, WA.
 27 The complaint states: “THE CONTACT STATED THAT WHILE THE DRIVER WAS
 28 DRIVING AT 45 MPH AND ATTEMPTED TO AVOID A CRASH WITH ANOTHER

1 VEHICLE. AS A RESULT, THE DRIVER CRASHED INTO A GUARDRAIL AND **THE AIR**
 2 **BAGS FAILED TO DEPLOY.** A POLICE REPORT WAS FILED. THE CONTACT WAS
 3 TAKEN TO A HOSPITAL AND SUSTAINED INJURIES TO THE RIBS, THE COLLAR
 4 BONES, A BRAIN TRAUMA AND A COLLAPSED LUNG. THE DRIVER SUFFERED
 5 FROM FATAL INJURIES.”

6 y. NHTSA complaint #10767586 dated Tuesday, September 22, 2015,
 7 reported an accident on Saturday, August 1, 2015 involving a 2004 CHEVROLET
 8 TRAILBLAZER in Tallahassee, FL. The complaint states: “MY MOTHER WAS INVOLVED
 9 IN A 1 CAR ACCIDENT ON BAUM RD LOCATED IN TALLAHASSEE, FL. SHE WAS THE
 10 ONLY PASSENGER DETERMINED TO BE IN THE VEHICLE AT THE TIME OF THE
 11 ACCIDENT. ACCORDING TO THE CRASH REPORT, D1 (DRIVER ONE) WAS
 12 TRAVELING WESTBOUND ON BAUM RD GOING THE NORMAL POSTED SPEED OF
 13 55MPH, WHEN SHE VEERED TOWARDS THE CENTER OF THE RD AND SUDDENLY
 14 TURNED RIGHT VEERING OF THE RIGHT SHOULDER OF THE RD AND STRIKING
 15 SEVERAL TREES ON THE DRIVERS SIDE AND FRONT END . . . WHEN I WENT TO
 16 RETRIEVE MY MOTHERS THINGS FROM HER TRAILBLAZER, I NOTICED THAT **NO**
 17 **AIR BAGS HAD DEPLOYED.** AND AS FAST AS MY MOM WAS GOING AND THE
 18 TYPE OF IMPACT & DAMAGE HER SUV SUSTAINED, I WOULD THINK AND HOPE
 19 THE AIRBAGS WOULD DEPLOY IN THIS TYPE OF ACCIDENT, THUS PREVENTING
 20 SERIOUS INJURY OR DEATH. MY MOM WAS NOT SO LUCKY, AND MYSELF AND MY
 21 FAMILY HAVE ENDURED GREAT PAIN FROM LOOSING HER SO SUDDENLY.”

22 z. NHTSA complaint #10907149 dated Friday, September 16, 2016, reported
 23 an accident on Thursday, September 1, 2016 involving a 2006 CADILLAC SRX in Happy
 24 Valley, OR. The complaint states: “THE VEHICLE HIT A CURB AND DROVE INTO A
 25 BUILDING. **THE AIR BAGS FAILED TO DEPLOY.** THE CONTACT SUSTAINED
 26 INJURIES THAT REQUIRED MEDICAL ATTENTION . . . THE MANUFACTURER WAS
 27 NOTIFIED OF THE FAILURE.”
 28

1 135. GM knew or had reason to know about these complaints, which are publicly
2 available on NHTSA's website. Indeed, many complaints explicitly state that GM was directly
3 informed of and/or investigated these suspicious accidents. For example:

4 a. A complaint about an August 2018 accident in a 2008 GMC Acadia details
5 that the airbags and seatbelt pretensioners did not deploy after the complainant's wife fell asleep
6 at the wheel and struck a utility pole and then a large dirt embankment—which caused her to “hit
7 the steering column so hard . . . it broke the column and broke her sternum,” and caused the
8 granddaughter in the passenger seat to break her back in two places. It continues that “GENERAL
9 MOTORS . . . SENT A MAN TO DOWNLOAD THE COMPUTER INFORMATION THEY
10 SENT ME A COPY OF THE INFO AND LATER CONTACTED ME SAYING THE INFO
11 SHOWED EVERYTHING WAS WORKING PROPERLY.” NHTSA complaint #11066850.

12 b. After a July 2014 head on collision at 50 MPH where the airbags did not
13 deploy in a 2007 Silverado, totaling the vehicle, another driver was “TOLD BY GM THAT
14 CRASH DID NOT MEET CRITERIA FOR DEPLOYMENT.” The driver expressed skepticism
15 about this response, and in the complaint, stated “A HEAD ON COLLISION AT 50 MPH THAT
16 TOTALED 2500 SERIES CHEVY TRUCK. HARD FOR ME TO BELIEVE . . . DO I NEED
17 TO [BE] CONCERNED?” NHTSA complaint #10608220.

18 c. Another driver reported on a May 2014 accident in a 2012 GMC Terrain in
19 Moneta, VA. The driver struck “something” head on after veering off the highway and proceeded
20 through trees and brush. They were knocked unconscious after hitting their head on the steering
21 wheel upon the first impact, as the airbags had failed to deploy. They were transported to a
22 hospital by ambulance and spent two days in inpatient care. The driver later “CONTACTED
23 GMC CORPORATE . . . TO ADVISE MY CONCERNS FOR SAFETY . . . RECEIVED A
24 FOLLOW UP TELEPHONE CALL FROM GMC REPRESENTATIVE . . . HE EXPRESSED
25 NO INTEREST IN MY COMPLAINT . . . REFUSED TO COMMENT ON MY STATEMENT
26 THAT AIR BAG FAILED TO DEPLOY RESULTING IN EXTENSIVE DAMAGE TO FRONT
27 OF VEHICLE AND SUSTAINING A HEAD INJURY AS NO BAG DEPLOYED . . . I WAS
28

1 ADVISED THAT GMC HAD NO FURTHER INTEREST IN THIS MATTER AND WOULD
2 NOT EVALUATE MY SAFETY CONCERNS.” NHTSA complaint #10588334.

3 d. After a July 2012 accident involving a 2012 GMC Terrain in San
4 Clemente, CA, in which the Terrain was hit multiple times in an intersection in the driver’s front
5 end, but no airbags deployed, resulting in whiplash and contusions to the driver, a GM
6 representative responded to a complaint lodged by the driver’s parents and stated that there was
7 “NO NEED FOR DEPLOYMENT” because it was a “LOW THRESHOLD EVENT.” NHTSA
8 complaint #10466384.

9 e. After hitting a patch of black ice at 58 MPH in a Chevrolet Silverado in
10 January 2008, another complainant described that they lost control of the vehicle, ran off the road,
11 crashed into a telephone pole and ultimately into a frozen embankment. The airbags did not
12 deploy, causing the driver to hit the steering wheel. As the complainant relates, they “FILED A
13 COMPLAINT WITH THE MANUFACTURER, BUT THE COMPLAINT WAS DENIED. THE
14 MANUFACTURER WAS UNABLE TO DIAGNOSE THE VEHICLE; HOWEVER, AFTER
15 INSPECTION OF THE VEHICLE, THE MANUFACTURER CONFIRMED THAT THE AIR
16 BAGS WERE ENABLED AT THE TIME OF IMPACT. THEY DID NOT GIVE AN
17 EXPLANATION FOR THE DEPLOYMENT FAILURE.” NHTSA complaint #10238395.

18 f. In a report about a March 2006 accident involving a 2005 Cadillac
19 Escalade in Louisville, KY, the complainant describes that after none of the airbags deployed in a
20 front end collision in their 4-week old vehicle, they “CALLED CADILLAC CUSTOMER
21 SERVICE AND WAS GIVEN AN AIRBAG HISTORY LESSON VIA TELEPHONE FROM
22 SOMEONE THAT HAD NEVER SEEN MY VEHICLE OR INSPECTED IT FOR DAMAGE
23 AFTER THE ACCIDENT. AT THE END OF OUR CONVERSATION I WAS TOLD ALL
24 WAS OK, NONE OF MY AIRBAGS SHOULD HAVE DEPLOYED AND NOT TO WORRY
25 ABOUT IT. THE ENTIRE FRONT END OF MY VEHICLE WAS KNOCKED OFF, THE
26 FRAME HAS MULTIPLE CRACKS AND IS BENT AS A RESULT OF THE COLLISION
27 AND THE COLLISION CENTER IS 90% CERTAIN THE VEHICLE IS NOT REPAIRABLE.
28 *JB” NHTSA complaint #10152376.

g. After an August 2004 accident involving a 1999 Chevrolet Astro in Norfolk, VA in which the vehicle jumped a curb, struck a fire hydrant, and then struck a tree without the airbags deploying, the driver was taken by ambulance to the hospital for head and neck injuries. After the accident, the “CONSUMER CONTACTED THE MANUFACTURER AND A REPRESENTATIVE CAME DOWN TO MEET WITH THE DEALER AND CONSUMER. THE REPRESENTATIVE INFORMED CONSUMER THAT THE VEHICLE WAS FUNCTIONING AS DESIGNED.” NHTSA complaint # 10087718.

h. Another driver contacted GM after the airbags did not deploy in a February 2004 front end collision at 25-30 MPH in their 2000 Isuzu Rodeo in Westwood, NJ. “THE CONSUMER CONTACTED THE MANUFACTURER ABOUT THE AIR BAGS BUT THE REPRESENTATIVE DID NOT SEEM TO BE TOO CONCERNED ABOUT THE SITUATION.” NHTSA complaint #10087550.

i. Another driver described a head on collision at 39 MPH in their 2002 Chevrolet Tahoe in which the airbags did not deploy and the seatbelts did not tighten. The driver hit their head on the steering wheel, knocking them unconscious. A readout from the vehicle’s computer showed the seatbelts were in working order, and GM responded by sending a representative to inspect the vehicle in person. The complainant was awaiting a response from GM at the time of the report. NHTSA complaint #10353935.

136. More than eight hundred similar complaints—i.e., frontal crashes in the Class Vehicles with airbag and seatbelt failures following multiple impacts, or, potentially long-soft frontal impacts—are attached hereto as Exhibit A.⁵³ These accidents are relevant, and suspicious, because they include hallmarks of the SDM Calibration Defect (airbag and seatbelt failures),

⁵³ The accidents in the preceding paragraph and Exhibit A include data for Class Vehicles in model years 1999-2014. In the interest of efficiency, Plaintiffs have not supplemented the accidents included in Exhibit A from the previously filed versions with their prior pleadings, but note that significant numbers of similar consumer reports of multi-impact and front-end impact accidents with airbag and seatbelt failures have continued to accrue in the NHTSA database in model years 1999-2014, as well as later model years, in the time since Exhibit A was originally prepared in 2021. Plaintiffs are prepared to submit supplemental examples of such incidents at the Court’s request.

1 under the very crash conditions where it arises, and in the specific population of vehicles
 2 Plaintiffs allege to be impacted.

3 137. In addition to these consumer complaints, a separate, public dataset from NHTSA,
 4 the Fatality Analysis Reporting System (“FARS”) provides a nationwide census of crashes that
 5 resulted in fatal injuries. While the complaints outlined above are reported to NHTSA by
 6 consumers and can include any type of complaint or incident, FARS data is reported by state
 7 agencies responsible for monitoring all qualifying fatal crashes in their states. To be included in
 8 FARS data, a crash must involve a motor vehicle traveling on a public road and result in the death
 9 of a person in one or more of the vehicles involved in the crash within 30 days of the crash. The
 10 dataset collects information on over 100 different data elements that characterize the crash, the
 11 vehicles, and the people involved—including whether or not the airbags deployed.

12 138. NHTSA’s FARS dataset also reveals a recurring pattern of suspicious
 13 nondeployments during frontal crashes (i.e., the crash dynamics that can implicate the SDM
 14 Calibration Defect) and reinforces the extremely high stakes of such incidents. From 1999 to
 15 present, FARS data reflects at least 1,946 frontal crashes where the airbags did not deploy in a
 16 Class Vehicle—1,167 of which occurred in 2009 or later, after New GM was formed. This same
 17 data reflects that at least 1,298 individual occupants (drivers or passengers) in a Class Vehicle
 18 were injured or killed in these crashes.

19 **D. Despite its knowledge, GM misrepresented and concealed important**
 20 **information about the SDM Calibration Defect and Class Vehicle safety.**

21 139. For many consumers, including Plaintiffs, safety is one of the most important
 22 factors when buying or leasing a vehicle. GM capitalized on this fact in advertising and other
 23 consumer-facing representations about the Class Vehicles and touted the safety of the Class
 24 Vehicles in national marketing campaigns.

25 140. In nationwide advertisement campaigns and promotional materials, GM
 26 maintained that the Class Vehicles were safe and reliable, and it did not correct representations
 27 about the Class Vehicles’ safety and reliability made by Old GM in the past. Instead, GM has
 28 repeatedly touted the Class Vehicles’ passenger safety systems and assured consumers they could

1 be relied upon to activate the airbags and seatbelts during a crash. These representations are false
 2 and misleading because of what they fail to say; GM uniformly failed to disclose that the SDM
 3 Calibration Defect could—at the worst possible moment—prevent the airbags and seatbelts from
 4 activating.

5 141. Plaintiffs and Class members, directly or indirectly, were exposed to these
 6 advertisements and promotional materials prior to purchasing or leasing their Class Vehicles. The
 7 misleading statements about Class Vehicles’ safety in GM’s advertisements and promotional
 8 materials, as well as GM’s omission of the truth about the SDM Calibration Defect, influenced
 9 Plaintiffs and Class members’ decisions to purchase or lease Class Vehicles. If GM had instead
 10 chosen to disclose the truth about the SDM Calibration Defect, Plaintiffs and Class members
 11 would have seen those disclosures. Indeed, Plaintiffs would have had multiple opportunities to
 12 receive information about the SDM Calibration Defect if GM chose to disclose it, including at
 13 dealerships, on GM’s website, in radio or television advertisements, brochures, press releases or
 14 in other promotional materials, as well as in news media reports that would likely follow from the
 15 revelation of a serious safety defect in millions of GM vehicles.

16 **1. Labels and window stickers on the Class Vehicles stated that they were**
 17 **equipped with working airbags and seatbelts and failed to disclose the**
 18 **SDM Calibration Defect.**

19 142. To sell vehicles in the United States, GM was required to “certify to the distributor
 20 or dealer at delivery that the vehicle or equipment complies with applicable motor vehicle safety
 21 standards prescribed” by NHTSA under Chapter 301 of Title 49 of the U.S. Code. GM “may not
 22 issue the certificate if, in exercising reasonable care,” they have “reason to know the certificate is
 23 false or misleading in a material respect.” 49 U.S.C. § 30115; *see also* 49 U.S.C. § 30112.

24 143. Because “[c]ertification of a vehicle must be shown by a label permanently fixed
 25 to the vehicle,” all Class Vehicles have a permanent label certifying compliance with the safety
 26 regulations prescribed by NHTSA. Since all the Class Vehicles are passenger vehicles, the
 27 permanent label must state: “This vehicle conforms to all applicable Federal motor vehicle safety,
 28 bumper, and theft prevention standards in effect on the date of manufacture shown above.” 49
 C.F.R. § 567.4(g)(5).

144. These labels were false and misleading because they failed to warn consumers about the risk that the SDM would fail during a frontal crash, and instead indicated that the passenger safety system would function properly. *See* 49 C.F.R. § 571.208 (S4.1.5.4, S4.1.5.5) (Federal motor vehicle safety standards requiring Occupant Restraint Systems with airbags and seatbelts).

145. Vehicle manufacturers have a duty to disclose known safety defects to the public and to NHTSA. When a vehicle manufacturer learns of a safety defect, federal law requires it to disclose the defect to NHTSA and to the owners, purchasers, and dealers of the vehicle. 49 U.S.C. § 30118(c). Indeed, GM Parent acknowledges these obligations in its public SEC filings. In its Form 10-K for fiscal year 2019, GM Parent states: “If we or NHTSA determine that either a vehicle or vehicle equipment does not comply with a safety standard or if a vehicle defect creates an unreasonable safety risk, the manufacturer is required to notify owners and provide a remedy.”

146. The interiors of the Class Vehicles also contain prominent labels that alert the driver and passengers to the vehicle’s airbag system. For example, steering wheels and passenger dashboards typically have labels identifying the airbag and safety restraint system (or “SRS”).

147. GM was also specifically required by law to include in their vehicles warning labels that alerted consumers of the need to perform airbag maintenance. For example, S4.5.1 of 49 C.F.R. § 571.208 states:

Air bag maintenance or replacement information. If the vehicle manufacturer recommends periodic maintenance or replacement of an inflatable restraint system, as that term is defined in S4.1.5.1(b) of this standard, installed in a vehicle, that vehicle shall be labeled with the recommended schedule for maintenance or replacement. The schedule shall be specified by month and year, or in terms of vehicle mileage, or by intervals measured from the date appearing on the vehicle certification label provided pursuant to 49 CFR Part 567. The label shall be permanently affixed to the vehicle within the passenger compartment and lettered in English in block capital and numerals not less than three thirty-seconds of an inch high. This label may be combined with the label required by S4.5.1(b) of this standard to appear on the sun visor.

[illegible]

2820476.3

1 151. As demonstrated by these examples, Monroney labels uniformly assured
 2 consumers that the Class Vehicles had working and safe airbags and seatbelts. This information
 3 would have suggested to any reasonable consumer that the passenger safety system did not suffer
 4 from a defect and would perform its intended function of activating the seatbelts and airbags
 5 when needed during a frontal collision.

6 2. **GM published owners' manuals for the Class Vehicles that detailed**
 7 **their safety features but did not disclose the SDM Calibration Defect.**

8 152. GM (and Old GM before it) published owners' manuals for each of the Class
 9 Vehicles, and distributed and made them available throughout the United States. These manuals
 10 were directed at consumers and included misleading statements regarding seatbelts, airbags, and
 11 passenger safety systems. These statements uniformly omitted any warning to consumers that the
 12 SDM could shut off too early during a crash, or that the airbags and seatbelt pretensioners may
 13 not deploy when expected.

14 153. Representative examples of statements from owners' manuals with materially
 15 misleading omissions concerning the effectiveness of their airbags follow in the paragraphs
 16 below.

17 154. The manual for the 2002 Cadillac Escalade provides extensive detail about the
 18 vehicle's airbags, including the below details and images. In addition to explaining the types of
 19 airbags and where they are located, the manual specifically alerts consumers that the airbags "are
 20 designed to inflate in moderate to severe frontal or near-frontal crashes" where "the impact speed
 21 is above the system's designed 'threshold level.'" As to frontal airbags, it explains that they have
 22 been "designed to help reduce the risk of injury from the force of an inflating airbag."
 23
 24
 25
 26
 27
 28

Supplemental Restraint Systems (SRS)

This part explains the frontal and side impact Supplemental Restraint Systems (SRS) or air bag systems.

Your vehicle has four air bags -- a frontal air bag for the driver, another frontal air bag for the right front passenger, a side impact air bag for the driver, and another side impact air bag for the right front passenger.

Frontal air bags are designed to help reduce the risk of injury from the force of an inflating frontal air bag. But these air bags must inflate very quickly to do their job and comply with federal regulations.

When should an air bag inflate?

The driver's and right front passenger's frontal air bags are designed to inflate in moderate to severe frontal or near-frontal crashes. But they are designed to inflate only if the impact speed is above the system's designed "threshold level."

If your vehicle goes straight into a wall that doesn't move or deform, the threshold level is about 9 to 16 mph (14 to 26 km/h). The threshold level can vary, however, with specific vehicle design, so that it can be somewhat above or below this range.

If your vehicle strikes something that will move or deform, such as a parked car, the threshold level will be higher. The driver's and right front passenger's frontal air bags are not designed to inflate in rollovers, side impacts, or rear impacts, because inflation would not help the occupant.

How the Air Bag Systems Work

Where are the air bags?



The driver's frontal air bag is in the middle of the steering wheel.



The right front passenger's frontal air bag is in the instrument panel on the passenger's side.

The driver's side impact air bag is in the side of the driver's seatback closest to the door.

How the Air Bag Systems Work

Where are the air bags?



The driver's frontal air bag is in the middle of the steering wheel.



The right front passenger's frontal air bag is in the instrument panel on the passenger's side.

The driver's side impact air bag is in the side of the driver's seatback closest to the door.

When Should an Airbag Inflate?

Frontal airbags are designed to inflate in moderate to severe frontal or near-frontal crashes to help reduce the potential for severe injuries mainly to the driver's or right front passenger's head and chest. However, they are only designed to inflate if the impact exceeds a predetermined deployment threshold. Deployment thresholds are used to predict how severe a crash is likely to be in time for the airbags to inflate and help restrain the occupants.

Whether the frontal airbags will or should deploy is not based on how fast your vehicle is traveling. It depends largely on what you hit, the direction of the impact, and how quickly your vehicle slows down.

All of the airbags in the vehicle will have the word AIRBAG embossed in the trim or on an attached label near the deployment opening.

For frontal airbags, the word AIRBAG will appear on the middle part of the steering wheel for the driver and on the instrument panel for the right front passenger.

With seat-mounted side impact airbags, the word AIRBAG will appear on the side of the seatback closest to the door.

With roof-rail airbags, the word AIRBAG will appear along the headliner or trim.

Airbags are designed to supplement the protection provided by safety belts. Even though today's airbags are also designed to help reduce the risk of injury from the force of an inflating bag, all airbags must inflate very quickly to do their job.

Airbag System

The vehicle has the following airbags:

- A frontal airbag for the driver.
- A frontal airbag for the right front passenger.
- A seat-mounted side impact airbag for the driver.
- A seat-mounted side impact airbag for the right front passenger.
- A roof-rail airbag for the driver, passenger seated directly behind the driver, and the third row outboard passenger position.
- A roof-rail airbag for the right front passenger, passenger seated directly behind the right front passenger, and the third row outboard passenger position.

155. The manuals for the 2009 Chevy Traverse and 2010 Buick Enclave include similar details and images. Like the manual for the 2002 Cadillac Escalade, they also assure consumers that the vehicle's airbags are "designed to help reduce the risk of injury from the force of an inflating bag" and, thus, that the aggressive deployment problems that plagued first-generation airbags had been alleviated. It also assures that the frontal airbags have been "designed to inflate

in moderate to severe frontal crashes to help reduce the potential for severe injuries....” It continues that airbag “deployment thresholds are used to predict how severe a crash is likely to be in time for the airbags to inflate and help restrain the occupants.” While it provides very specific detail about the way the passenger safety systems should function, the manual notably fails to say that the deployment thresholds are wholly and intentionally ignored early on into a crash sequence, preventing the airbags and seatbelts from functioning when they need to.

156. The manual for the 2014 GMC Acadia provides additional detail about how the passenger safety system functions. It explains that “Airbags are designed to inflate if the impact exceeds the specific airbag system’s deployment thresholds.” Yet again, however, the manual does not indicate that the SDM and its sensors are rendered useless in multi-impact crashes that endure for longer than a specific, aggressive cutoff imposed by GM.

Where Are the Airbags?



The driver frontal airbag is in the center of the steering wheel.



The front outboard passenger frontal airbag is in the passenger side instrument panel.



If the vehicle has a front center airbag, it is in the inboard side of the driver seatback.

When Should an Airbag Inflate?

This vehicle is equipped with airbags. See *Airbag System* on page 3-23. Airbags are designed to inflate if the impact exceeds the specific airbag system’s deployment threshold. Deployment thresholds are used to predict how severe a crash is likely to be in time for the airbags to inflate and help restrain the occupants. The vehicle has electronic sensors that help the airbag system determine the severity of the impact. Deployment thresholds can vary with specific vehicle design.

Frontal airbags are designed to inflate in moderate to severe frontal or near frontal crashes to help reduce the potential for severe injuries, mainly to the driver’s or front outboard passenger’s head and chest.

Whether the frontal airbags will or should inflate is not based primarily on how fast the vehicle is traveling.

It depends on what is hit, the direction of the impact, and how quickly the vehicle slows down.

Frontal airbags may inflate at different crash speeds depending on whether the vehicle hits an object straight on or at an angle, and whether the object is fixed or moving, rigid or deformable, narrow or wide.

Frontal airbags are not intended to inflate during vehicle rollovers, rear impacts, or many side impacts.

In addition, the vehicle has advanced technology frontal airbags. Advanced technology frontal airbags adjust the restraint according to crash severity.

The front center airbag, if equipped, is designed to inflate in moderate to severe side crashes depending upon the location of the impact, when either side of the vehicle is struck. In addition, the front center airbag is designed to inflate when the sensing system predicts that the vehicle is about to roll over on its

side. The front center airbag is not designed to inflate in frontal impacts, near frontal impacts, or rear impacts.

Seat-mounted side impact airbags are designed to inflate in moderate to severe side crashes depending on the location of the impact. Seat-mounted side impact airbags are not designed to inflate in frontal impacts, near frontal impacts, rollovers, or rear impacts.

A seat-mounted side impact airbag is designed to inflate on the side of the vehicle that is struck.

Roof-rail airbags are designed to inflate in moderate to severe side crashes depending on the location of the impact. In addition, these roof-rail airbags are designed to inflate during a rollover or in a severe frontal impact. Roof-rail airbags are not designed to inflate in rear impacts. Both roof-rail airbags will inflate when either side of the vehicle is struck, if the sensing

1 **3. GM marketed the Class Vehicles to be safe and reliable but failed to**
 2 **mention the SDM Calibration Defect.**

3 157. Like its other consumer-facing representations, GM’s advertisements for the Class
 4 Vehicles left out a crucial part of the story. By uniformly omitting any information about the
 5 SDM Calibration Defect, GM misled consumers into believing that their airbags and seatbelts
 6 would function properly in a crash, despite its knowledge to the contrary.

7 158. A 2013 press release about the 2014 Chevy Silverado 1500, GMC Sierra, and
 8 Sierra Denali 1500 is further illustrative of GM’s misleading statements about the Class Vehicles.
 9 Acknowledging that safety is “as important to truck buyers as it is to car buyers,” Gay Kent, GM
 10 general director of Vehicle Safety and Crashworthiness, stated that the “Silverado and Sierra set a
 11 benchmark for pickup truck safety by offering a full array of advanced features designed to
 12 protect occupants before, during and after a collision.” The press release noted the vehicle’s “[s]ix
 13 standard air bags and 360-degree sensor system, including dual-stage frontal air bags, head-
 14 curtain side-impact air bags with rollover protect, and front outboard seat-mounted side-impact
 15 air bags.”

16 159. Brochures and press releases for other Class Vehicles use similar language to send
 17 a misleading message of safety. Illustrative examples are listed below.

18 a. Beginning with the 1999 Chevy Blazer, GM promised to go “to the ends of
 19 the earth to bring you driving security,” assuring “peace of mind” with its “mainstay features such
 20 as Next Generation driver and right-front-passenger airbags.”

21 b. “Because safety and security are so important to your family,” the brochure
 22 for the 2002 Chevy Astro reads, “Astro features a comprehensive system to help you feel secure
 23 while you’re driving.” Among other safety features, “[s]tandard driver and front-passenger air
 24 bags . . . [are] designed to give you peace of mind. Chevy Astro. It’s the midsize van that’s
 25 serious about safety and security.”

26 c. The brochure for the 2006 GMC Yukon promises, “should the worst
 27 happen, your Yukon will protect you and your passengers with front and rear crush zones, a
 28 sturdy steel safety cage, up to four air bags and a host of other important safety features.”

1 d. The brochure for the 2008 Buick Enclave explains that “[s]afety and
2 protection were top priorities in the design of the Enclave” and touts the vehicle’s “360°
3 perimeter safety system [that] will deploy the appropriate airbags.”

4 e. Promising “[f]eelings of security and confidence,” the brochure for the
5 2009 Chevy Equinox states the vehicle’s “dual-stage frontal and head-curtain side-impact air
6 bags” helped earn it “the highest possible government rating for frontal crash tests – five stars.”

7 f. Declaring that “[s]afety never goes out of style,” the brochure for the 2009
8 Chevy Traverse highlights the vehicle’s “five-star frontal and side-impact crash test ratings” and
9 its “six air bags that help protect all three rows of seating.”

10 g. A press release for the 2009 Cadillac Escalade ESV goes further,
11 proclaiming that the “Escalade is designed to be among the industry’s safest and most secure
12 vehicles, with numerous safety systems and crash-avoidance technologies.”

13 h. “Speaking of safety,” the brochure for the 2010 Buick Enclave reads,
14 “Enclave has earned an impressive five-star crash rating for both front and side impacts
15 Five-star rating is for the driver and front passenger seating positions in the frontal crash test and
16 for the front and rear seating positions in the side-impact crash test.”

17 i. The brochure for the 2010 GMC Terrain describes the vehicle as “the state
18 of the art in air bags” and contends that “[s]egment-best safety is anticipated, with features that
19 include . . . six standard air bags: dual frontal airbags; head curtain side air bags and pelvic/thorax
20 seat-mounted side airbags.”

21 j. The brochure for the 2010 Silverado assures that the “head of security
22 never goes off the clock,” boasting of a “five-star frontal crash test rating,” including through its
23 “driver and right-front passenger dual-stage airbags.”

24 k. A press release for the 2011 Cadillac Escalade Hybrid explains, “[f]ront-
25 image airbags for the driver and passenger have been designed to protect the head during a frontal
26 crash.”

27 l. According to the brochure for the 2011 Cadillac SRX, “[p]assenger safety
28 is a primary consideration throughout the engineering process.” If an incident occurs, “the SRX

1 looks out for you and yours,” with its “six standard airbags, including advanced, frontal dual-
2 stage and seat mounted side-impact airbags for the driver and front-seat passenger, as well as
3 first- and second- row outboard head-curtain airbags.”

4 m. Describing Buick’s “holistic[]” approach to safety, the brochure for the
5 2012 Enclave proclaims, “Enclave’s approach to safety helps you and your companions feel safe
6 and secure before, during and after your travels.” Inside the vehicle, “all rows have curtain side-
7 impact air bags with rollover protection, along with driver and front-passenger side-impact and
8 dual-stage airbags.”

9 n. In a 2013 press release announcing that NHTSA gave “its highest possible
10 5-star Overall Score” to a number of Chevrolet vehicles, including the Traverse and the
11 Silverado, Kent said “We design safety and crashworthiness into our vehicles very early in
12 development.” He continued, “We are committed to offering advanced safety technologies on a
13 broad range of models All of our vehicles are designed to provide continuous protection for
14 customers before, during and after a crash.”

15 o. A press release for the 2013 Buick Enclave likewise publicized Buick’s
16 safety record: “In 2012, every Buick model was named a Top Safety Pick by the Insurance
17 Institute for Highway Safety, underscoring the brand’s commitment to safety leadership. The
18 2013 builds on that distinction with the industry’s first front center side air bag – a standard
19 feature.”

20 p. “With head curtain side-impact air bags reaching from the front to the third
21 row of seating for outboard passengers,” the 2014 brochure for the GMC Yukon XL reads,
22 “Yukon is engineered to help protect passengers regardless of where they’re seated.”

23 q. Claiming to “set[] the standard . . . in everything from safety to
24 performance,” the brochure for the 2014 Cadillac Escalade touts the vehicle’s “eight standard
25 airbags,” including “[d]ual-stage driver and front passenger, front-impact, Automatic Occupant
26 Sensing System, driver and front passenger seat-mounted side-impact airbags for thorax and
27 pelvic protection and head-curtain side-impact airbags with rollover protection for all outboard
28 passenger rows.”

r. The brochure for the 2014 Buick Enclave promises that the vehicle has “your back, front and sides, proclaiming that “in an industry first, the standard driver’s seat side-mounted front center air bag adds another layer of protection by providing cushioning between you and your front passenger to help reduce injuries in side impacts.” The brochure includes the below picture, indicating that the airbags will function as expected.



160. Based on information and belief, every single Class Vehicle advertisement omitted any mention that the vehicles’ airbags and seatbelts could fail in a serious frontal collision due to the SDM Calibration Defect.

4. GM provided warranties to repair defects in the Class Vehicles and have not done so.

161. Plaintiffs and each Class member have had sufficient direct dealings with either Defendants or their agents (including dealerships) to establish privity of contract between Defendants, on the one hand, and Plaintiffs and each Class member, on the other hand, as to the implied warranties described in the Claims for Relief below.

162. Nonetheless, privity is not required here because Plaintiffs and each Class member are intended third-party beneficiaries of contracts between Defendants and their dealers, and of their implied warranties. The dealers were not intended to be the ultimate consumers of the Class Vehicles and have no rights under the warranty agreements provided with the Class Vehicles; the warranty agreements were designed for and intended to benefit consumers only. Finally, privity is also not required because the Class Vehicles are dangerous instrumentalities due to the safety defect in the SDM Calibration.

* * *

163. GM's deceptive actions harmed Plaintiffs and the Class. As a result of GM's unfair, deceptive, and/or fraudulent business practices, and failure to disclose that the Class Vehicles carried a dangerous safety defect that would cause the passenger safety systems to shut off during certain types of accidents, owners and lessees of the Class Vehicles have lost money and/or property.

V. CLASS ACTION ALLEGATIONS

164. This case is about GM's legal responsibility for its knowledge, conduct, and products. The proposed Class members' claims all derive directly from a single course of conduct by GM. The objective facts are the same for all Class members. Within each Count asserted by Plaintiffs on behalf of themselves and the proposed Class, the same legal standards govern.

165. Accordingly, Plaintiffs bring this lawsuit as a class action on their own behalf, and on behalf of all other persons similarly situated, as members of the proposed Class pursuant to Federal Rules of Civil Procedure 23(a), (b)(2), and/or (b)(3), and/or (c)(4). This action satisfies the numerosity, commonality, typicality, adequacy, predominance, and superiority requirements of those provisions. Certification of Plaintiffs' claims for class-wide treatment is appropriate because Plaintiffs can prove the elements of the claims on a class-wide basis using the same evidence as would be used in individual actions alleging the same claims.

A. The Class Definition

166. The "Class Vehicles" herein include all vehicles in the United States that contain the SDM Calibration Defect that were (1) manufactured, sold, distributed, or leased by Defendants or (2) manufactured, sold, distributed, or leased by Old GM and purchased or leased by Plaintiffs or a Class member after July 10, 2009.

167. The SDM Calibration Defect exists in all GM trucks and SUVs starting with model year 1999. This would include, for example, trucks and SUVs such as the Silverado, Tahoe, Astro, and Trailblazer. The information presently available to Plaintiffs shows that, after it was introduced in or about 1999, GM continued to implement its defective cutoff strategy in software used in GM SUVs through model year 2018. Discovery will reveal when, if ever, GM

1 discontinued use of the SDM Calibration Defect in its trucks and SUVs. This information is
 2 uniquely in the Defendants' hands, as only GM (and Delco, n/k/a Aptiv) possess the software
 3 calibration files for GM vehicles that will demonstrate the presence of the defect in the software;
 4 these files are not downloadable or otherwise accessible from the vehicles themselves, meaning
 5 Plaintiffs are unable to obtain those files on their own.

6 168. The proposed Class includes all persons and entities that purchased or leased a
 7 Class Vehicle in the state of California.

8 169. Excluded from the Class are:

9 a. Defendants' officers, directors and employees; Defendants' affiliates and
 10 affiliates' officers, directors, and employees; Defendants' distributors and distributors' officers,
 11 directors, and employees; and

12 b. Judicial officers and their immediate family members and associated court
 13 staff assigned to this case.

14 170. Certification of Plaintiffs' claims for class-wide treatment is appropriate because
 15 Plaintiffs can prove the elements of their claims on a class-wide basis using the same evidence as
 16 would be used in individual actions alleging the same claims.

17 171. Plaintiffs reserve the right to amend the Class definitions if discovery and further
 18 investigation reveal that any Class should be expanded, reduced, divided into additional
 19 subclasses under Rule 23(c)(5), or otherwise modified.

20 **B. Numerosity: Federal Rule of Civil Procedure 23(a)(1)**

21 172. The members of the Class are so numerous and geographically dispersed that
 22 individual joinder of all Class members is impracticable. There are millions of Class Vehicles
 23 nationwide, a significant number of which are in the state of California. The precise number and
 24 identities of the California Class members may be ascertained from Defendants' records and
 25 motor vehicle regulatory data. Class members may be notified of the pendency of this action by
 26 recognized, Court-approved notice dissemination methods.

1 **C. Commonality and Predominance: Federal Rule of Civil Procedure 23(a)(2)**
 2 **and 23(b)(3)**

3 173. This action involves common questions of law and fact, which predominate over
 4 any questions affecting individual Class members. These include, without limitation, the
 5 following:

- 6 a. Whether the Class Vehicles' SDM software calibration is defective, as
 7 described herein;
- 8 b. Whether Defendants knew, or should have known, about the SDM
 9 Calibration Defect, and, if so, how long they have or should have known about it;
- 10 c. Whether Defendants had a duty to disclose the defective nature of the Class
 11 Vehicles to Plaintiffs and Class members;
- 12 d. Whether Defendants' concealment of the SDM Calibration Defect caused
 13 Plaintiffs and Class members to act to their detriment by purchasing or leasing the Class Vehicles;
- 14 e. Whether Defendants' certifications concerning vehicle safety were
 15 misleading considering the risk that the SDMs will not trigger airbags and seatbelts during certain
 16 types of collisions;
- 17 f. Whether Defendants' conduct tolls any or all applicable limitations periods
 18 by acts of fraudulent concealment, application of the discovery rule, or equitable estoppel;
- 19 g. Whether Defendants misrepresented that the Class Vehicles were safe;
- 20 h. Whether Defendants concealed the SDM Calibration Defect;
- 21 i. Whether Defendants' statements, concealments, and omissions regarding
 22 the Class Vehicles were material, in that a reasonable consumer could consider them important in
 23 purchasing, leasing, selling, maintaining, or operating such vehicles;
- 24 j. Whether Defendants engaged in unfair, deceptive, unlawful, and/or
 25 fraudulent acts or practices, in trade or commerce, by failing to disclose that the Class Vehicles
 26 were designed, manufactured, sold, and leased with defective airbag components;
- 27 k. Whether the Class Vehicles were unfit for the ordinary purposes for which
 28 they were used, in violation of the implied warranty of merchantability;

1 l. Whether Defendants' concealment of the true defective nature of the Class
 2 Vehicles caused their market price to incorporate a premium reflecting the assumption by
 3 consumers that the Class Vehicles were equipped with fully functional passenger safety systems
 4 and, if so, the market value of that premium; and

5 m. Whether Plaintiffs and the other Class members are entitled to damages
 6 and other monetary relief and, if so, in what amount.

7 **D. Typicality: Federal Rule of Civil Procedure 23(a)(3)**

8 174. Plaintiffs' claims are typical of the claims of Class members whom they seek to
 9 represent under Fed. R. Civ. P. 23(a)(3), because Plaintiffs and each Class member purchased or
 10 leased a Class Vehicle and were comparably injured through Defendants' wrongful conduct as
 11 described above. Plaintiffs and the other Class members suffered damages as a direct proximate
 12 result of the same wrongful practices by Defendants. Plaintiffs' claims arise from the same
 13 practices and courses of conduct that give rise to the claims of the other Class members.
 14 Plaintiffs' claims are based upon the same legal theories as the claims of the other Class
 15 members.

16 **E. Adequacy: Federal Rule of Civil Procedure 23(a)(4)**

17 175. Plaintiffs will fairly and adequately represent and protect the interests of the Class
 18 members as required by Fed. R. Civ. P. 23(a)(4). Plaintiffs' interests do not conflict with the
 19 interests of the Class members. Plaintiffs have retained counsel competent and experienced in
 20 complex class action litigation, including automobile defect litigation and other consumer
 21 protection litigation. Plaintiffs intend to prosecute this action vigorously. Neither Plaintiffs nor
 22 their counsel have interests that conflict with the interests of the other Class members. Therefore,
 23 the interests of the Class members will be fairly and adequately protected.

24 **F. Declaratory and Injunctive Relief: Federal Rule of Civil Procedure 23(b)(2)**

25 176. Defendants have acted or refused to act on grounds generally applicable to
 26 Plaintiffs and the other members of the Class, thereby making appropriate final injunctive relief
 27 and declaratory relief, as described below, with respect to the Class as a whole.
 28

1 **G. Superiority: Federal Rule of Civil Procedure 23(b)(3)**

2 177. A class action is superior to any other available means for the fair and efficient
3 adjudication of this controversy, and no unusual difficulties are likely to be encountered in its
4 management. The damages or other financial detriment suffered by Plaintiffs and the other Class
5 members are relatively small compared to the burden and expense that would be required to
6 individually litigate their claims against Defendants such that it would be impracticable for
7 members of the Class to individually seek redress for Defendants' wrongful conduct.

8 178. Even if Class members could afford individual litigation, the court system could
9 not. Individualized litigation creates a potential for inconsistent or contradictory judgments and
10 increases the delay and expense to all parties and the court system. By contrast, the class action
11 device presents far fewer management difficulties and provides the benefits of single
12 adjudication, economy of scale, and comprehensive supervision by a single court.

13 **VI. ANY APPLICABLE STATUTES OF LIMITATION ARE TOLLED**

14 179. Defendants have known of the SDM Calibration Defect since at least 2009, when
15 GM learned, through books, records, and personnel, that Old GM had launched the defective
16 calibration strategy despite clear warnings of the risk of doing so, and then continued to use that
17 defective software strategy thereafter. They obtained further knowledge of the risks of the SDM
18 Calibration Defect from lawsuits and multiple suspicious accidents (involving airbag and seatbelt
19 failures in frontal accidents) occurring in practically every year since, which provided additional
20 and confirmatory notice of the continued risks of the SDM Calibration Defect.

21 180. GM had a duty to disclose the SDM Calibration Defect to consumers and NHTSA.
22 Instead, GM knowingly, affirmatively, and actively concealed the defect from regulators and
23 consumers by continuing to distribute, sell, and/or lease the Class Vehicles to Plaintiffs and the
24 Class members; to advertise the safety of the Class Vehicles; and to fail to notify regulators or
25 Plaintiffs and the Class members about the true nature of the Class Vehicles.

26 181. As of the date of this Complaint, GM still has not disclosed, and continues to
27 conceal, that the Class Vehicles are defective, that the SDM Calibration Defect could prevent the
28 airbags and seatbelts from activating during certain kinds of frontal collisions, and that these

1 Class Vehicles' safety systems may fail them in life-threatening collisions. Despite its knowledge
2 of the SDM Calibration Defect and its attendant safety risks, GM continues to market the Class
3 Vehicles based on superior safety and reliability while omitting the disclosure safety and
4 reliability risks associated with the SDM Calibration Defect.

5 182. Plaintiffs and members of the proposed Class could not have discovered through
6 the exercise of reasonable diligence that GM was concealing the SDM Calibration Defect in their
7 vehicles and misrepresenting the defective nature of the Class Vehicles.

8 183. With respect to Class Vehicles that have not experienced airbags or seatbelt
9 failure, Plaintiffs and other Class members did not discover, could not reasonably have
10 discovered, and had no reason to suspect that their Class Vehicles are defective, that GM
11 calibrated the software program that controls the SDM to prematurely cutoff airbag and seatbelt
12 deployment after a crash has begun, that—in affirmatively blocking these critical safety features
13 too early—GM significantly and unnecessarily increased the risk of injury and death in frontal
14 crashes, that the safety of their Class Vehicles is impaired by this defect such that the Class
15 Vehicles' safety system may fail them in potentially deadly collisions, or that, as a result of the
16 foregoing, they overpaid for their vehicles, and/or the value of their vehicles is diminished.

17 184. With respect to Class Vehicles that have experienced airbag and/or seatbelt failure
18 prior to the filing of this Complaint, Class members did not discover and could not reasonably
19 have discovered that such failure was due to a defect known to GM through a dangerous and
20 defective approach to SDM software calibration.

21 185. Plaintiffs and other Class members did not discover, and did not know of, facts
22 that would have caused a reasonable person to suspect that GM did not report this material
23 information within their knowledge to consumers, dealerships, or relevant authorities; nor would
24 a reasonable and diligent investigation have disclosed that GM was aware of the defective nature
25 of the SDM software calibration and the Class Vehicles in which it was incorporated.

26 186. Due to the highly technical nature of the SDM Calibration Defect, Plaintiffs and
27 Class members were unable to independently discover it using reasonable diligence. Absent
28 counsel and third-party consultants with relevant expertise, Plaintiffs and Class members lack the

1 necessary expertise to analyze the software algorithm for the SDMs, or vehicle safety system
 2 performance in an accident, and to understand its defective nature. GM has not issued a recall or
 3 issued other similar public statements about the SDM Calibration Defect, and Plaintiffs first
 4 learned of the defective nature of the SDM software calibration in their vehicles, and of GM's
 5 scheme to design and sell vehicles with defective SDM software calibrations, only in connection
 6 with retaining counsel and filing this lawsuit in 2021 (for Plaintiff Vargas and Milstead). Plaintiff
 7 Ray learned of the SDM Calibration Defect in connection with retention of counsel in late 2020,
 8 and was also aware of the pendency of this putative class action before filing his claims.

9 187. For the foregoing reasons, GM is estopped from relying on any statutes of
 10 limitation or repose as a defense in this action. All applicable statutes of limitation and repose
 11 have been tolled by operation of the discovery rule and by GM's fraudulent concealment with
 12 respect to all claims against GM.

13 **VII. CAUSES OF ACTION**

14 **COUNT I:** 15 **FRAUD BY CONCEALMENT** 16 **(Common Law)**

17 188. Plaintiffs re-allege and incorporate by reference all paragraphs as though fully set
 18 forth herein.

19 189. Plaintiffs bring this claim against all Defendants on behalf of themselves and the
 20 California State Class under the common law of fraudulent concealment.

21 190. Defendants are liable for both fraudulent concealment and non-disclosure. *See,*
 22 *e.g.,* Restatement (Second) of Torts §§ 550-51 (1977).

23 191. Defendants intentionally and knowingly concealed and suppressed material facts
 24 from regulators and consumers regarding the SDM Calibration Defect that causes the airbags and
 25 seatbelts to fail in prolonged onset, complex, or otherwise multi-impact accidents, causing a
 26 serious risk of injury or death.

27 192. A reasonable consumer would not have expected that the Class Vehicles contained
 28 a software program that was calibrated to prevent seatbelt tightening and airbag deployment

1 during certain types of frontal crashes that are otherwise severe enough to require them.

2 Defendants knew that reasonable consumers expect that their vehicle has working airbags and
3 seatbelt pretensioners and would rely on those facts in deciding whether to purchase, lease, or
4 retain a new or used motor vehicle. Whether a manufacturer's products are safe and reliable, and
5 whether that manufacturer stands behind its products, are material concerns to a consumer.

6 193. Defendants ensured that Plaintiffs and the Class did not discover this information
7 by actively concealing and misrepresenting the true nature of the Class Vehicles' safety systems.
8 Defendants intended for Plaintiffs and the Class to rely on their omissions—which they did by
9 purchasing and leasing the Class Vehicles at the prices they paid.

10 194. Defendants had a duty to disclose the SDM Calibration Defect because:

11 a. GM had exclusive and/or far superior knowledge and access to the facts
12 about this hidden and complex safety defect. Defendants also knew that these technical facts were
13 not known to or reasonably discoverable by Plaintiffs and the Class; GM knew the SDM
14 Calibration Defect (and its safety risks) was a material fact that would affect Plaintiffs' or Class
15 members' decisions to buy or lease Class Vehicles; GM is subject to statutory duties to disclose
16 known safety defects to consumers and to NHTSA; GM's actions to avoid investigations and a
17 recall due to the defect deprived consumers of an opportunity in which they could have learned
18 about it; and GM made incomplete representations about the safety and reliability of the Class
19 Vehicles and their passenger safety systems, while purposefully withholding material facts about
20 a known safety defect. In uniform advertising and materials provided with each Class Vehicle,
21 Defendants intentionally concealed, suppressed, and failed to disclose to Plaintiffs and the Class
22 that the Class Vehicles contained the dangerous SDM Calibration Defect. Because they
23 volunteered to provide information about the Class Vehicles that they offered for sale to Plaintiffs
24 and the Class, Defendants had the duty to disclose the whole truth. They did not.

25 195. To this day, Defendants have not made full and adequate disclosure and continue
26 to conceal material information regarding the SDM Calibration Defect. The omitted and
27 concealed facts were material because a reasonable person would find them important in
28

1 purchasing, leasing, or retaining a new or used motor vehicle, and because they directly impact
2 the value of the Class Vehicles purchased or leased by Plaintiffs and the Class.

3 196. Defendants actively concealed or suppressed these material facts, in whole or in
4 part, to maintain a market for their vehicles, to protect profits, and to avoid costly recalls that
5 would hurt the GM brand's image. They did so at the expense of Plaintiffs and the Class. Had
6 they been aware of the SDM Calibration Defect in the Class Vehicles, and Defendants' callous
7 disregard for safety, Plaintiffs and the Class either would not have paid as much as they did for
8 their Class Vehicles, or they would not have purchased or leased them.

9 197. Accordingly, Defendants are liable to Plaintiffs and the Class for their damages in
10 an amount to be proven at trial, including, but not limited to, their lost overpayment for the Class
11 Vehicles at the time of purchase or lease.

12 198. Defendants' acts were done maliciously, oppressively, deliberately, with intent to
13 defraud; in reckless disregard of Plaintiffs' and the Class' rights and well-being; and to enrich
14 themselves. Their misconduct warrants an assessment of punitive damages in an amount
15 sufficient to deter such conduct in the future, which amount shall be determined according to
16 proof at trial.

17 **COUNT II:**
18 **UNJUST ENRICHMENT**
19 **(Common Law)**

20 199. Plaintiffs re-allege and incorporate by reference all paragraphs as though fully set
21 forth herein.

22 200. Plaintiffs Richard Vargas and Arthur Ray assert this Unjust Enrichment count on
23 behalf of themselves and the California State Class.

24 201. By reason of their conduct, Defendants caused damages to Plaintiffs and Class
25 members. Plaintiffs and Class members conferred a benefit on the Defendants by overpaying for
26 Class Vehicles at prices that were artificially inflated by Defendants' concealment of the SDM
27 Calibration Defect and misrepresentations regarding the Class Vehicles' safety.
28

202. As a result of Defendants' fraud and deception, Plaintiffs and Class members were not aware of the true facts concerning the Class Vehicles and did not benefit from the Defendants' misconduct.

203. Defendants knowingly benefitted from their unjust conduct. They sold and leased Class Vehicles equipped with the SDM Calibration Defect for more than what the vehicles were worth, at the expense of Plaintiffs and Class members.

204. Defendants readily accepted and retained these benefits from Plaintiffs and Class members.

205. It is inequitable and unconscionable for Defendants to retain these benefits because they misrepresented that the Class Vehicles were safe, and intentionally concealed, suppressed, and failed to disclose the SDM Calibration Defect to consumers. Plaintiffs and Class members would not have purchased or leased the Class Vehicles or would have paid less for them, had Defendants not concealed the SDM Calibration Defect.

206. Plaintiffs and Class members do not have an adequate remedy at law.

207. Equity cannot in good conscience permit the Defendants to retain the benefits that they derived from Plaintiffs and Class members through unjust and unlawful acts, and therefore restitution or disgorgement of the amount of the Defendants' unjust enrichment is necessary.

COUNT III:

Violation of California Consumers Legal Remedies Act Cal. Civ. Code § 1750, *et seq.*

208. Plaintiffs re-allege and incorporate by reference all preceding allegations as though fully set forth herein.

209. Plaintiffs bring this claim on behalf of themselves and the California State Class against the Defendants.

210. Plaintiffs and California State Class members are "consumers" within the meaning of Cal. Civ. Code § 1761(d).

211. Defendants, the California Plaintiffs, and California State Class members are "persons" within the meaning of Cal. Civ. Code § 1761(c).

1 212. The Class Vehicles are “goods” within the meaning of Cal. Civ. Code § 1761(a).

2 213. The California Legal Remedies Act (“CLRA”) prohibits “unfair methods of
3 competition and unfair or deceptive acts or practices undertaken by any person in a transaction
4 intended to result or that results in the sale or lease of goods or services to any consumer[.]” Cal.
5 Civ. Code § 1770.

6 214. Defendants engaged in unfair or deceptive acts or practices when, in the course of
7 their business they, among other acts and practices, intentionally and knowingly made materially
8 false representations regarding the reliability, safety, and performance of the Class Vehicles
9 and/or the defective SDM software calibration, as detailed above.

10 215. Specifically, by misrepresenting the Class Vehicles as safe and/or free from
11 defects, and by failing to disclose and actively concealing the dangers and risk posed by the Class
12 Vehicles, Defendants engaged in one or more of the following unfair or deceptive business
13 practices as defined in Cal. Civ. Code § 1770(a):

- 14 a. Representing that the Class Vehicles have characteristics, uses, benefits, and qualities
15 which they do not have.
- 16 b. Representing that the Class Vehicles are of a particular standard, quality, and grade
17 when they are not.
- 18 c. Advertising the Class Vehicles and/or with the intent not to sell or lease them as
19 advertised.
- 20 d. Representing that the subject of a transaction has been supplied in accordance with a
21 previous representation when it has not.

22 Cal. Civ. Code §§ 1770(a)(5), (7), (9), and (16).

23 216. Additionally, in the various channels of information through which Defendants
24 sold and marketed Class Vehicles, Defendants failed to disclose material information concerning
25 the Class Vehicles, which they had a duty to disclose. Defendants had a duty to disclose the
26 defect because, as detailed above: (a) Defendants knew about the defect in the SDM software
27 calibration in the Class Vehicles; (b) Defendants had exclusive knowledge of material facts not
28 known to the general public or the other California State Class members; (c) Defendants actively

1 concealed material facts concerning the software calibration from the general public and Plaintiffs
2 and California State Class members; and (d) Defendants made partial representations about the
3 Class Vehicles that were misleading because they did not disclose the full truth.

4 217. Defendants' unfair or deceptive acts or practices, including their
5 misrepresentations, concealments, omissions, and/or suppressions of material facts, had a
6 tendency or capacity to mislead and create a false impression in consumers, and were likely to
7 and did in fact deceive reasonable consumers, including Plaintiffs and California State Class
8 members, about the true safety and reliability of Class Vehicles, the quality of the Class Vehicles,
9 and the true value of the Class Vehicles.

10 218. Plaintiffs and the other California State Class members have suffered injury in fact
11 and actual damages resulting from Defendants' material omissions.

12 219. Defendants' violations present a continuing risk to Plaintiffs and California State
13 Class members, as well as to the general public, and therefore affect the public interest.

14 220. Defendants are on notice of the issues raised in this count and this Complaint by
15 way of, among other things, the individual personal injury litigation and hundreds of public
16 consumer complaints detailed above, as well as their own intrinsic knowledge of defect they have
17 included in the Class Vehicles by design. Plaintiffs also sent a notice letter to Defendants in
18 accordance with Cal. Civ. Code § 1782(a) of the CLRA, notifying Defendants of their alleged
19 violations of Cal. Civ. Code § 1770(a) and demanding that Defendants correct or agree to correct
20 the actions described therein within thirty (30) days of the notice letter. Defendants did not
21 correct or agree to correct their actions within thirty days, and Plaintiffs therefore seek
22 compensatory and monetary damages to which Plaintiffs and California Class Members are
23 entitled under the CLRA.

24 221. Attached hereto as Exhibit C is the venue affidavit required by CLRA, Cal. Civ.
25 Code § 1780(d).

COUNT IV:
Violations of the California Unfair Competition Law
Cal. Bus. & Prof. Code § 17200, et seq.

222. Plaintiffs re-allege and incorporate by reference all preceding allegations as though fully set forth herein.

223. Plaintiffs bring this claim on behalf of themselves and the California State Class against the Defendants.

224. The California Unfair Competition Law (“UCL”), Cal. Bus. and Prof. Code § 17200, prohibits any “unlawful, unfair, or fraudulent business act or practices.”

225. Defendants’ knowing and intentional conduct described in this Complaint constitutes unlawful, fraudulent, and unfair business acts and practices in violation of the UCL. Specifically, Defendants’ conduct is unlawful, fraudulent, and unfair in at least the following ways:

a. by knowingly and intentionally concealing from Plaintiffs and California State Class members that the Class Vehicles suffer from the SDM Calibration Defect while obtaining money from the California State Class members;

b. by marketing Class Vehicles as possessing a functional, safe, and defect-free passenger safety system;

c. by purposefully designing and manufacturing the Class Vehicles to contain a defective SDM software calibration that causes airbags and seatbelts to fail in certain accidents contrary to what was disclosed to regulators and represented to consumers who purchased or leased Class Vehicles, and failing to fix the SDM Calibration Defect free of charge; and

d. by violating the other California laws alleged herein, including the False Advertising Law, Consumers Legal Remedies Act, California Commercial Code, and Song-Beverly Consumer Warranty Act.

226. Defendants’ misrepresentations, omissions, and concealment were material to the California Plaintiffs and California State Class members, and Defendants misrepresented, concealed, or failed to disclose the truth with the intention that consumers would rely on the misrepresentations, concealment, and omissions.

227. Defendants' material misrepresentations and omissions alleged herein caused Plaintiffs and the California State Class members to make their purchases or leases of their Class Vehicles. Absent those misrepresentations and omissions, Plaintiffs and California State Class members would not have purchased or leased these vehicles or would not have purchased or leased these Class Vehicles at the prices they paid.

228. Accordingly, Plaintiffs and California State Class members have suffered ascertainable loss and actual damages as a direct and proximate result of Defendants' misrepresentations and their concealment of and failure to disclose material information.

229. Defendants' violations present a continuing risk to Plaintiffs and California State Class members, as well as to the general public. Defendants' unlawful acts and practices complained of herein affect the public interest.

230. Plaintiffs request that this Court enter an order enjoining Defendants from continuing their unfair, unlawful, and/or deceptive practices and restoring to members of the California State Class any money Defendants acquired by unfair competition, including restitution and/or restitutionary disgorgement, as provided in Cal. Bus. & Prof. Code § 17203 and Cal. Bus. & Prof. Code § 3345, and for such other relief set forth below.

**COUNT V:
Violations of the California False Advertising Law
Cal. Bus. & Prof. Code § 17500, *et seq.***

231. Plaintiffs re-allege and incorporate by reference all preceding allegations as though fully set forth herein.

232. Plaintiffs bring this claim on behalf of themselves and the California State Class against the Defendants.

233. The California False Advertising Law ("FAL"), Cal. Bus. & Prof. Code § 17500, prohibits false advertising.

234. Defendants, Plaintiffs, and California State Class members are "persons" within the meaning of Cal. Bus. & Prof. Code § 17506.

235. Defendants violated the FAL by causing to be made or disseminated through California and the United States, through advertising, marketing and other publications,

1 statements regarding the safety of the Class Vehicles that were untrue or misleading, and which
2 were known, or which by the exercise of reasonable care should have been known to Defendants,
3 to be untrue and misleading to consumers, including California State Class members. Numerous
4 examples of these statements and advertisements appear in the preceding paragraphs throughout
5 this Complaint and in Exhibit B.

6 236. The misrepresentations and omissions regarding the reliability and safety of Class
7 Vehicles as set forth in this Complaint were material and had a tendency or capacity to mislead
8 and create a false impression in consumers, and were likely to and did in fact deceive reasonable
9 consumers, including Plaintiffs and California State Class members, about the true safety and
10 reliability of Class Vehicles, the quality of the Defendants' brands, and the true value of the Class
11 Vehicles.

12 237. In purchasing or leasing their Class Vehicles, the California State Class members
13 relied on the misrepresentations and/or omissions of Defendants with respect to the safety and
14 reliability of the Class Vehicles. Defendants' representations turned out not to be true because the
15 Class Vehicles are distributed with a dangerous safety defect, rendering the vehicles' airbags and
16 seatbelts inoperative in certain types of accidents.

17 238. Plaintiffs and the other California State Class members have suffered an injury in
18 fact, including the loss of money or property, as a result of Defendants' unfair, unlawful, and/or
19 deceptive practices. Had they known the truth, Plaintiffs and California State Class members
20 would not have purchased or leased the Class Vehicles or would have paid significantly less for
21 them.

22 239. Plaintiffs and California State Class members had no way of discerning that
23 Defendants' representations were false and misleading, or otherwise learning the facts that
24 Defendants had concealed or failed to disclose. Plaintiffs and California State Class members did
25 not, and could not, unravel Defendants' deception on their own.

26 240. Defendants had an ongoing duty to Plaintiffs and California State Class members
27 to refrain from unfair or deceptive practices under the California False Advertising Law in the
28 course of their business. Specifically, the Defendants owed Plaintiffs and California State Class

1 members a duty to disclose all the material facts concerning the SDM Calibration Defect in the
 2 Class Vehicles because they possessed exclusive knowledge, they intentionally concealed the
 3 defect from Plaintiffs and California State Class members, and/or they made misrepresentations
 4 that were misleading because they were contradicted by withheld facts.

5 241. All of the wrongful conduct alleged herein occurred, and continues to occur, in the
 6 conduct of Defendants' business. Defendants' wrongful conduct is part of a pattern or generalized
 7 course of conduct that is still perpetuated and repeated, both in the State of California and
 8 nationwide.

9 242. Defendants' violations present a continuing risk to Plaintiffs and California State
 10 Class members, as well as to the general public. Defendants' unlawful acts and practices
 11 complained of herein affect the public interest.

12 243. Plaintiffs request that this Court enter an order enjoining Defendants from
 13 continuing their unfair, unlawful, and/or deceptive practices and restoring to the California State
 14 Class any money Defendants acquired by unfair competition, including restitution and/or
 15 restitutionary disgorgement, and for such other relief set forth below.

16 **COUNT VI:**
 17 **Breach of Implied Warranty of Merchantability**
 18 **Cal. Com. Code §§ 2314 and 10212**

19 244. Plaintiffs re-allege and incorporate by reference all preceding allegations as though
 20 fully set forth herein.

21 245. Plaintiffs bring this claim on behalf of themselves and the California State Class
 22 against the Defendants.

23 246. Defendants are and were at all relevant times "merchant[s]" with respect to motor
 24 vehicles under Cal. Com. Code §§ 2104(1) and 10103(c), and "sellers" of motor vehicles under
 25 § 2103(1)(d).

26 247. With respect to leases, Defendants are and were at all relevant times "lessors" of
 27 motor vehicles under Cal. Com. Code § 10103(a)(16).

28 248. All California State Class members who purchased Class Vehicles in California
 are "buyers" within the meaning of Cal. Com. Code § 2103(1)(a).

1 257. All California State Class members who purchased Class Vehicles in California
2 are “buyers” within the meaning of Cal. Civ. Code § 1791(b).

3 258. All California State Class members who leased Class Vehicles in California are
4 “lessors” within the meaning of Cal. Civ. Code § 1791(h).

5 259. The Class Vehicles are “consumer goods” within the meaning of Cal. Civ. Code
6 § 1791(a).

7 260. Defendants are the “manufacturer[s]” of the Class Vehicles within the meaning of
8 Cal. Civ. Code § 1791(j).

9 261. Defendants impliedly warranted to Plaintiffs and the other members of the
10 California State Class that the Class Vehicles were “merchantable” within the meaning of Cal.
11 Civ. Code §§ 1791.1(a) & 1792; however, the Class Vehicles do not have the quality that a buyer
12 would reasonably expect.

13 262. The Class Vehicles would not pass without objection in the automotive trade due
14 to the SDM Calibration Defect. Because the Class Vehicles contain defective SDMs, the Class
15 Vehicles are not in merchantable condition and thus not fit for ordinary purposes.

16 263. The Class Vehicles are not adequately labeled because the labeling fails to disclose
17 the SDM Calibration Defect. The Class Vehicles do not conform to the promises and affirmations
18 made by the Defendants regarding safety.

19 264. The Defendants’ breach of the implied warranty of merchantability caused damage
20 to Plaintiff Vargas and California State Class members who purchased or leased the defective
21 Class Vehicles. The amount of damages due will be proven at trial.

22 265. Pursuant to Cal. Civ. Code §§ 1791.1(d) and 1794, Plaintiffs and California State
23 Class members seek an order enjoining Defendants’ unfair and/or deceptive acts or practices,
24 damages, punitive damages, and any other just and proper relief available under the Song-Beverly
25 Consumer Warranty Act.

26 **VIII. PRAYER FOR RELIEF**

27 Plaintiffs, on behalf of themselves and all others similarly situated, request for the Court
28 to enter judgment against the Defendants, as follows:

1 a. An order certifying the proposed Class, designating Plaintiffs as the named
 2 representatives of the Class, designating the undersigned as Class Counsel, and making such
 3 further orders for the protection of Class members as the Court deems appropriate, under Fed. R.
 4 Civ. P. 23;

5 b. An order enjoining the Defendants to desist from further deceptive
 6 distribution, sales, and lease practices with respect to the Class Vehicles and such other injunctive
 7 relief that the Court deems just and proper;

8 c. An award to Plaintiffs and Class Members of compensatory, exemplary,
 9 and punitive remedies and damages and statutory penalties, including interest, in an amount to be
 10 proven at trial;

11 d. A declaration that Defendants are financially responsible for all Class
 12 notice and the administration of Class relief;

13 e. Costs, restitution, and compensatory damages for economic loss and out-
 14 of-pocket costs, multiple damages under applicable states' laws; punitive and exemplary damages
 15 under applicable law; and disgorgement, in an amount to be determined at trial;

16 f. Any applicable statutory and civil penalties;

17 g. An award of costs and attorneys' fees, as allowed by law;

18 h. An order requiring Defendants to pay both pre- and post-judgment interest
 19 on any amounts awarded.

20 i. Leave to amend this Complaint to conform to the evidence produced at
 21 trial; and

22 j. Such other or further relief as the Court may deem appropriate, just, and
 23 equitable under the circumstances.

24 **IX. DEMAND FOR JURY TRIAL**

25 Pursuant to Federal Rule of Civil Procedure 38(b), Plaintiffs demand a trial by jury of any
 26 and all issues in this action triable by a jury.

1 Dated: July 27, 2023

Respectfully Submitted,

2 By: /s/ David S. Stellings

3 David S. Stellings (*pro hac vice*)
4 Katherine I. McBride (*pro hac vice*)
5 Jessica A. Moldovan (*pro hac vice*)
6 **LIEFF CABRASER HEIMANN**
7 **& BERNSTEIN, LLP**
8 250 Hudson Street, 8th Floor
9 New York, NY 10013
10 Telephone: 212.355.9500
11 Facsimile: 212.355.9592
12 dstellings@lchb.com
13 kmcbride@lchb.com
14 jmoldovan@lchb.com

15 Richard Heimann (CA Bar # 063607)
16 Nimish R. Desai (CA Bar # 244953)
17 **LIEFF CABRASER HEIMANN**
18 **& BERNSTEIN, LLP**
19 275 Battery St., 29th Fl.
20 San Francisco, CA 94111-3339
21 Telephone: 415-956-1000
22 Facsimile: 415-956-1008
23 rheimann@lchb.com
24 ndesai@lchb.com

25 Roland Tellis (CA Bar #186269)
26 David Fernandes (CA Bar #280944)
27 Adam Tamburelli (CA Bar #301902)
28 **BARON & BUDD, P.C.**
15910 Ventura Boulevard, Suite 1600
Encino, California 91436
Telephone: (818) 839-2333
Facsimile: (818)-986-9698
rtellis@baronbudd.com
dfernandes@baronbudd.com
atamburelli@baronbudd.com

Christopher A. Seeger (*pro hac vice*)
Christopher L. Ayers (*pro hac vice*)
SEEGER WEISS LLP
55 Challenger Road, 6th Floor
Ridgefield Park, NJ 07660
Telephone: (973) 639-9100
Facsimile: (973) 639-9393
cseeger@seegerweiss.com
cayers@seegerweiss.com

Shauna Itri (*pro hac vice*)
SEEGER WEISS LLP
1515 Market Street, Suite 1380
Philadelphia, PA 19102
Telephone: (215) 564-2300
Facsimile: (215) 851-8029
sitri@seegerweiss.com

W. Daniel “Dee” Miles, III (*pro hac vice*)
H. Clay Barnett, III (*pro hac vice*)
J. Mitch Williams (*pro hac vice*)
Rebecca D. Gilliland (*pro hac vice*)
Dylan T. Martin (*pro hac vice*)
**BEASLEY, ALLEN, CROW,
METHVIN, PORTIS & MILES, P.C.**
272 Commerce Street
Montgomery, AL 36104
Telephone: (334) 269-2343
Dee.Miles@beasleyallen.com
Clay.Barnett@beasleyallen.com
Mitch.Williams@beasleyallen.com
Rebecca.Gilliland@beasleyallen.com
Dylan.Martin@beasleyallen.com

David M. Birka-White (CA Bar # 85721)
BIRKA-WHITE LAW OFFICES
178 E. Prospect Avenue
Danville, CA 94526
Telephone: (925) 362-9999
dbw@birka-white.com

James E. Cecchi (*pro hac vice*)
Caroline F. Bartlett (*pro hac vice*)
**CARELLA, BYRNE, CECCHI,
OLSTEIN, BRODY & AGNELLO, P.C.**
5 Becker Farm Road
Roseland, New Jersey 07068
Telephone: (973) 994-1700
Facsimile: (973) 994-1744
jcecchi@carellabyrne.com
cbartlett@carellabyrne.com

Joseph H. Meltzer (*pro hac vice*)
Melissa L. Yeates (*pro hac vice*)
**KESSLER TOPAZ
MELTZER & CHECK, LLP**

280 King of Prussia Road
Radnor, PA 19087
Telephone: (610) 667-7706
Facsimile: (610) 667-7056
jmeltzer@ktmc.com
myeates@ktmc.com

Charles E. Schaffer (*pro hac vice*)
David C. Magagna Jr. (*pro hac vice*)
LEVIN, SEDRAN & BERMAN, LLP
510 Walnut Street, Suite 500
Philadelphia, PA 19106
cschaffer@lfsblaw.com
dmagagna@lfsblaw.com

E. Powell Miller (*pro hac vice forthcoming*)
THE MILLER LAW FIRM, P.C.
950 West University Drive, Suite 300
Rochester, MI 48307
Telephone: (248) 841-2200
Facsimile: (248) 652-2852
epm@millerlawpc.com

Jason P. Sultzer, Esq. (*pro hac vice*)
THE SULTZER LAW GROUP P.C.
270 Madison Avenue, Suite 1800
New York, NY 10016
Tel: (845) 483-7100
Fax: (888) 749-7747
sultzerj@thesultzerlawgroup.com